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THE JOURNAL

OF

LARYNGOLOGY

AND

RHINOLOGY;

*AN ANALYTICAL RECORD OF CURRENT LITERATURE RELATING TO
THE THROAT AND NOSE.*

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HYPODERMIC TABLOIDS.

LONDON.]

JANUARY.

1890.

HYPODERMIC TABLOIDS.

Authorities on Hypodermic medication hold that the use of ready-made solutions of the alkaloids is the cause of a large proportion of the accidents that have occurred from injecting medicines under the skin.

Reason how we may, the alkaloids are at best unstable things, and to assert that in solution or on exposure they will not undergo change is to disregard facts entirely. To hold that none of them are affected by light is equally far from remark. That microscopic organisms develop as a rule in alkaloid



B. W. & Co. Hypodermic Tableted pages of the works
Pocket Case, fitted and filled con-on Materia Medica
plete (12 tubes of 12 or 20 Tableoids that this and that ac-
each), 158. tive principle should

be freshly dissolved for use. The most cursory observer must notice that with time his solutions undergo a very marked change, and it is hardly philosophical to at once conclude that the change is nothing. The most stable solution that has ever been introduced throws down a sediment after a little time, and the manufacturer of this solution deems it prudent to recommend that it be filtered, after standing awhile, before it is injected. Yet filtering does not remove all irritating foreign matter as has been proved. Some of the ready-made solutions undergo such a change as to produce, when injected, effects contrary to those desired. A notable example of this, is a solution of Pilocarpine, which has been known to change into Jalorine, allied in its action to Atropine. After it had undergone this change, Pilocarpine would of course dry the skin instead of bathing it with profuse perspiration.

One reason, no doubt, why hypodermic medication is not more widely resorted to is because of the bulkiness of solutions, and their use being confined very largely to morphine—that potent, subtle, and dangerous drug, a comparatively small dose of which has been known to produce death in a few minutes. A case of solutions must necessarily be more or less bulky, or else contain very few drugs. With the Hypodermic Tablets the circumstances are different. The B. W. & Co. No. 7 Hypodermic Tablet Pocket Case contains 144 carefully apportioned, accurately made Tablets of compressed alkaloids and active principles. Such an array as this constitutes an armamentarium never before placed in the hands of a medical man. It constitutes an emergency case adapted to a very wide range of usefulness. No matter where he may be, the physician will find it almost daily of service, for the Hypodermic Tablets are not restricted in their uses to Hypodermic injections, but may be given by the mouth, and used in other ways as well. The case complete contains a little pestle and mortar, a correctly graduated syringe, needles, wires, &c., and a highly condensed monograph on Hypodermic medication, containing notes outlining the uses, doses, and dangers of each drug, with full tables for treating cases of poisoning. It may be carried in the wastebag pocket.

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Pharmacokinetic parameters were determined for morphine and morphine metabolites in urine and plasma. Morphine and morphine metabolites were determined in urine and plasma by HPLC.

graph. tetra. [fevers, etc.]

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Fig 1. Tongue seen from above.



Fig 2. Tongue seen from below.



A Case of Acute Hemorrhagic Glossitis

THE
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AND RHINOLOGY.

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JANUARY, 1890.

NO. 1.

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A CASE OF ACUTE HÆMORRHAGIC GLOSSITIS.

By HOLGER MYGIND, M.D.

(With Two Coloured Plates.)

ALTHOUGH hæmorrhagic inflammations of other organs are by no means rare, there exists no case on record (so far as I have been able to ascertain) of acute hæmorrhagic glossitis. This is possibly owing to the circumstance that genuine acute glossitis (also called parenchymatous, or deep glossitis, in opposition to superficial glossitis) is so rare that all the cases mentioned in literature can be easily enumerated, and each new casuistic contribution appears with the claims of a *rara avis*, although none of these have added anything new to the symptomatology, and still less to the etiology of this typical, but, in many ways, mysterious disease of the tongue.

As I have lately observed a case of undoubted glossitis acuta hæmorrhagica, I have thought it might be of some interest to the readers of this Journal, and will therefore describe it as completely as a case first recorded deserves to be described, so far as it has been possible for me to do owing to the want of intelligence of the patient's surroundings.

The patient was a married shop-keeper, aged forty-eight years, without children. He looked older than his age owing to his hard struggle for existence. According to his own account, he had always enjoyed good health, only now and then having suffered from rheumatism in the shoulder and hip joints. His medical attendant, Dr. Thaarup, who at the time was abroad, informed me, however, afterwards, that he had treated the patient several times for slight attacks of delirium tremens (the patient himself emphatically denied the abuse of spirits). The patient had, besides, suffered from very severe frontal headache, and had, in May, 1886, vomited blood, for which he had been treated dietetically and with bismuth. The gastric symptoms having soon disappeared, and the patient having at the same time suffered from bleeding of the nose, the nature of this hæmatemnesis was, according to Dr. Thaarup, somewhat

doubtful. The patient denied ever having suffered from genital disease, and there was no sign of syphilis. There were no bleeders in his family, and he was not inclined himself to bleeding from contusions, etc.

The 11th of September, 1889, the patient rose as usual at 6 a.m., and went to business feeling perfectly well. At 7 a.m. he began to feel poorly, and went up to his room, and lay down on his sofa. He grew gradually worse, having no appetite, feeling weak, and at last getting rigors, with consequent heat and perspiration. At this period there were no local symptoms whatever arising from the mouth or nose. Later on he went to sleep, and woke at 2 p.m., feeling blood about the mouth and nose. He has not been able to determine, however, later on, whether the blood came from the mouth or not, but he felt sure that it came from the left nostril. He then had a cup of warm camomile tea, after which he vomited, and in the vomit was dark red blood. About 2.30 he began to feel pains in his tongue, and, on his wife looking at it, she became much alarmed to find it black and swollen. The vomiting continued, the patient feeling worse and worse, and, what alarmed him most, the tongue continued to swell, and articulation became gradually more impaired. He was by this time much troubled by the abundant secretion of viscid saliva and mucus from the mouth, which he tried to remove by various movements, all of which caused nausea and vomiting.

I saw the patient first at 4.45 p.m. He was walking up and down the room in great distress. His appearance was pale and frightened, the skin covered with cold perspiration. He was rather difficult to understand, articulation being so much impaired by the enlarged tongue. His chief complaint was, that he felt the tongue so swollen, the tumefaction increasing every hour, and he feared that it would at last choke him. He constantly endeavoured to remove the saliva by all sorts of movements, to "clean his tongue" he called it.

The examination of the mouth gave the following results:—The patient keeps his teeth about half an inch apart to make room for the swollen tongue, which, however, does not come further than the level of the lips: he is also able to keep his tongue in his mouth with the teeth meeting, though not without discomfort. He can protrude the tongue a good deal, and also move it in all directions, though slowly and with some difficulty. (The accompanying drawings, by Mr. F. Hartvig, taken from nature on the third day of the illness, show the tongue more protruded, and more rolled up than was really possible for the patient, but I found it necessary to make these deviations from the fact in order to make the drawing clear and comprehensible). When the patient protruded his tongue, it was at once seen to be very abnormal, both in size and colour. The tumefaction was mostly shown by the thickening of the edge, especially the right, the whole right side being altogether more swollen than the left; the two sides being separated by a deep gutter-like depression, answering to the position of the septum. The free edge of the tongue was pretty smooth, showing no impression whatever of the teeth. (The following day the teeth had made deep impressions as shown by figure 1.) The abnormal colour of the tongue was very conspicuous, the upper surface being deep blue nearly all over. This dark blue did not, however, cover

the whole surface, but left a margin on the right side about one centimètre, on the left about one and a half centimètres wide of normal colour; this normally coloured margin extended also to the middle line along the above described gutter-like depression, as also the free thickened edge, and the tip of the tongue were of normal colour. The blue colour extended as far back as could be seen, but seemed less intense at the root of the tongue. On closer observation it was seen that the colour was not distributed evenly, but in darker longitudinal stripes, alternated with pale. (This is easily explained by the circumstance, that the blood had been diffused from the depths along the layers of the genio-glottic muscle.) On scraping off the epithelium of the coloured part, it was seen to be quite colourless, and the colour of the tongue remained unchanged, indicating, that the abnormal colour was situated in the deeper layers of the mucous membrane. On the under surface of the tongue the effusion of blood had more the appearance of ecchymoses of a dark blue colour, which was, however, a little paler here than on the upper surface. These ecchymoses occupied the greater part of the under surface in the form of stripes and maculæ, which, however, were confluent towards the centre of each half of the tongue. Backwards that part of the mucous membrane, which goes from the under surface of the tongue to the floor of the mouth, was perfectly normal in colour, as was also the under surface of the free margin. The mucous membrane of the floor of the mouth (sulcus alveolo-lingualis) was considerably swollen from effusion of blood, which was evenly distributed all over, and was of the same colour as the under surface of the tongue. The papillæ sublinguales were especially prominent on account of their tumefaction and colour. They had the appearance of two dark blue, shining, grape-like bodies, situated on either side of frenum lingvæ, being highest in the middle line, and sloping downwards to each side. The mucous membrane of the mouth was otherwise quite normal. The saliva, which flowed abundantly from the mouth, was viscid and slightly blood-stained, this latter caused apparently by the forced movements of the tongue to free it from saliva. The temperature of the tongue—so far as could be judged by touch—was not abnormal. It was only slightly tender.

A thorough examination of the surface of the tongue showed no solution of continuity, nor was any point found, which from its extreme swelling or colour could be considered the starting point of the disease. The pharynx was somewhat difficult to examine, but on introducing a finger no swelling was found either of the palate, the arches, the glosso-epiglottic ligaments, or of the naso-pharynx.

The examination of the nose did not reveal anything abnormal, except some crusts of blood in the left anterior opening.

No swelling of the glands existed about the jaw.

The temperature (in rectum) was 38·7 (Celsius), the pulse 100, and weak. Respiration was 16, and perfectly unimpaired. The examination of thoracic and abdominal organs did not reveal any disorder. There was no cedema, and nowhere any effusion of blood beneath the skin. The gingiva was healthy. The urine was acid, and had a specific gravity of 1020, and was strongly coloured with red urates, which, however,

disappeared on warming. On boiling the urine, a sediment appeared, which did not dissolve in nitric acid, and increased by cooling (albumen). There was no sugar.

R.—Regimen frigidum.

Pilulæ—glaciales.

Epithema glaciale reg. submaxill.

Extract. secal. cornuti. 15 centigram semi horie.

8 p.m. The tumefaction of the tongue somewhat increased, the appearance being the same as before, except that the teeth had made impressions on the tongue, especially on the right edge and tip. No vomiting; feels better.

The 12th of September, 1889. 8.30 a.m. Has not slept all night, though not troubled much by the tongue. Temp. 37.7. Pulse 96, strong. Feels considerably better. Pronunciation more distinct. Strong fœtor ex ore. The swelling of the tongue less, but colour unchanged. The impressions caused by teeth much deeper, and each surrounded by a rim of dark blue colour (see figure 1). Salivation less. No swelling of external glands.

5 p.m. Has with great difficulty taken a cup of bouillon with the yolk of an egg—the difficulty not consisting in swallowing, but in bringing the food backwards in the mouth by means of the tongue. The swelling somewhat diminished. Colour unchanged.

The 13th of September, 1889. 12 mid-day. Temperature 38. Pulse 92. Has been sleepless all night and delirious. Tremor manuum et lingvæ. Salivation more considerable, also fœtor ex ore. The tumefaction less, colour somewhat altered, the margin of the upper surface described the 11th of September as being of normal colour, being slight blue-violet (see accompanying drawings executed on this day). No swollen glands.

R.—Gargarisma of chlorate of potash.

6 p.m. Is perfectly delirious. Tremor increased. Has had some bouillon, but complains, that everything, even water, hurts his tongue. It seems, that touch is painful owing to the superficial excoriations round the depressions caused by the teeth. The tongue otherwise unchanged.

Cont.—Medicamina.

R.—Hydrate of chloral.

2½ gram. vespere.

The 14th September, 1889. 7 a.m. Patient sits dressed at his writing table, and purposes making up his accounts. Considerable tremor. Has not slept all night, although another dose of chloral has been given. Is delirious and excited. Speaks constantly of small black kittens, chimney sweeps, etc. The appearance of tongue considerably changed. The dark blue upper surface being paler, and the edge darker blue violet. The boundary line between the formally described coloured and normal parts being much less distinct than before. The ecchymoses on the under surface of the tongue are paler, whilst those of the floor of the mouth are unchanged.

Cont.—Medicamina.

Extract secal cornut. bihorie.

5 p.m. Having taken 7 grammata of chloral since the previous night, the patient has slept the greater part of the day. Temp. 37°8. Pulse 82. Is more clear and less excited. Tremor diminished. The depressions caused by the teeth are now, especially on the right side, changed into ulcerations; the surrounding dark blue rim has disappeared. In one place, corresponding to a sharp molar tooth, the ulceration is very deep, but with clear edges. The original dark blue of the upper surface of the tongue much paler—the whole surface being of a pale blue violet. The effusion of blood on the floor of the mouth is also paler and less extensive. Fœtor less. Pronunciation considerably better.

The 15th September, 1889. Temp. 37°5. Pulse 78. Has slept well after five grammata of chloral. Is perfectly clear. Tremor much less. Urine contains no albumen.¹ The whole upper surface of the tongue much paler than yesterday, there being no difference in colour between the margin and the centre. The ecchymoses on the under surface and in sulcus alveo lingualis smaller, but the papillæ sublinguales still very prominent on account of their swelling and dark blue colour. The excoriations on the edge of the tongue all healed except the deep one mentioned before, which is deeper still to-day and prevents the patient from eating, so that he can only take liquid food. Pronunciation also difficult and painful.

Sep.—Extract. secal. cornut.

The 16th September, 1889. Except for the painful ulceration the patient is now perfectly well. Swelling of the tongue nearly gone. The tongue still pale blue violet all over.

The 18th September, 1889. The ulceration described before becomes deeper and more painful, otherwise patient feels well. The blue colour diminishing daily, except in the papillæ sublinguales, where the dark colour still remains. Tongue very painful.

The 20th September, 1889. The sharp edge of the tooth having been filed, the excoriation on the tongue is nearly healed, and the pains have ceased. Tongue otherwise unchanged.

The 25th September, 1889. Swelling disappeared. Ulceration healed, leaving a superficial scar. The surface of the tongue quite naked and scarlet. In papillæ sublinguales still traces of the blue colour. The patient doing well.

The 28th September, 1889. Tongue and floor of the mouth, in all respects, quite normal. Urine, as by two previous examinations, without albumen.

Remarks.—That the case above described was first of all a case of acute inflammation of the tongue (glossitis acuta profunda seu parenchymatosa) there can be little doubt, as after previously feeling quite well the patient suddenly was attacked with fever and general malaise, followed by rapid swelling of the tongue and profuse secretion from the mouth, and other considerable local troubles. That in this case the inflammation was of hæmorrhagic character is shown by the effusions of blood in the tongue

¹ Owing to the indifference of the patient's attendants it had been impossible to obtain any urine on the previous days.

itself, appearing, according to anatomical relations, on the upper and under surface of that organ and in the floor of the mouth. That it was not a case of simple hæmorrhage of the tongue is proved : 1. Because the lesion had an inflammatory character being accompanied by general symptoms such as fever, general malaise, albuminuria, which symptoms generally accompany simple acute glossitis. 2. Because both sides of the tongue, though differently, were impaired by the disease. 3. Because tumefaction was equally developed in places where blood appeared or not, proving that the swelling was not caused by blood alone. 4. Because there was no spot, which by greater swelling or accumulation of blood, could be considered as the source of the bleeding. 5. Because no traumatic lesion could be detected. 6. Because there was no external bleeding, which would have been sure to appear had the swelling been caused by hæmorrhage alone, as the bleeding would then have been considerable (the source of the slight quantity of blood found in the saliva has been mentioned).

As far as the etiology of this case is concerned nothing much can be said, as in most cases of acute glossitis. Nothing was found in the anamnesis on examination of the patient pointing to infection, bite by insects, caustic irritation, etc. That the inflammation took a hæmorrhagic character can easily be explained by the fact, that the patient suffered from chronic alcoholism, a disease which disposes to fragility of the blood vessels. That the patient had previously had hæmorrhage, and that bleeding from the nose appeared simultaneously with the tongue trouble, makes the hæmorrhagic character of the inflammation less strange.

As far as the treatment is concerned, it will be observed that the usual treatment for acute glossitis, viz., deep incisions, was not made use of ; Firstly, because there was no danger of incarceration of the tongue ; Secondly, because such treatment might have aggravated the existing bleeding ; and Thirdly, because the case was so recent that internal treatment might well be tried first. The course of the case proved that incision would have been superfluous. Whether the favourable course was caused or aided by the treatment can hardly be decided.

CONDITION OF THE AIR-PASSAGES IN WEST INDIAN LEPROSY.

By JOHN D. HILLIS, F.R.C.S.,

Chief Physician to the Leper Asylum, Demerara.

HAVING, since the publication of my work on leprosy, been engaged in the study of diseases of the throat, it was suggested to me that a clinical report on the condition of the air-passages of the patients at the large leper institutions of British Guiana, West Indies, of which, for ten years, I had, at one time, been chief physician, might not be uninteresting to the readers of the JOURNAL OF LARYNGOLOGY.

The condition of the throat in leprosy has been described by Sir

Morell Mackenzie and other writers. The former's interesting account of it appeared in this Journal, and dealt fully with the subject as far as *the leprosy of temperate climates is concerned*. ("Leprosy in British Guiana." J. & A. Churchill, 1881.) The report, dealing exclusively as it does with leprosy of warm climates, may not be considered unnecessary work if it places on record clinical facts carefully observed at the seat of the disease. The same materials were to my hand that were available when describing, in 1881, the disease of leprosy generally, and to these leper institutions I had free access.

The Guiana leper asylums are situated at the mouth of the Mahaica river, as it enters the Atlantic Ocean, and thus open to the invigorating N.E. trade winds, which prevail during nine months of the year. Large sums of money—over £6,000—are annually voted by the legislature of the country for their support, and every care is taken of the health and comfort of the inmates. They get fresh meat four times a week, and abundance of fresh milk and vegetables. A medical superintendent is attached to the place, and under him are officers and a large staff of servants. A chaplain and schoolmaster have also been appointed to look after the spiritual welfare of the lepers. The latter are located in detached cottages, placed *en echelon*, with over 1000 cubic feet of air space to each inmate, and surrounded by well-kept walks and gardens. Compulsory segregation, however, is not insisted on, and the lepers are free to come and go as they please, much to the disgust and annoyance of the healthy inhabitants of the country, and, in consequence, leprosy is greatly on the increase in the colony of British Guiana.

From the official report for 1888 it would appear that 430 males and 99 females were dealt with during the year 1887, of whom 69—a mortality equal to 19 per cent.—died during the year, only two deaths being attributed to leprous affections of the throat.

By the kind permission of the Medical Superintendent, Dr. Carter, I had a dark room fitted up at the asylum, where I worked in the afternoons after my official duties elsewhere were over for the day. My observations were principally conducted at the male asylum where these facilities existed, for I had previously ascertained that females do not suffer in any different manner from the males as far as the throat affection is concerned. I took the tubercular wards first, examining the cases as they were numbered in the ward books. Having taken careful notes of these, I next examined cases of mixed, and finally, of anæsthetic leprosy. Having examined in this manner over 100 cases, I went through the hospital wards examining those cases whose throats were in any way affected. I thus found that cases of mixed leprosy, as far as the air-passages were concerned, were not differently affected to those of tubercular leprosy proper, and I have not included any notes of them in this report.

The following refer to cases of tuberculated leprosy only :—

CASES OF TUBERCULATED LEPROSY.—*Males.*

No.	Age.	Country.	Duration of Leprosy.	General condition.	Condition of the air passages
1	26	B. Guiana	11	Advanced tuberculated leprosy. Bridge of nose fallen in	Throat first affected five years ago. Orifice of mouth so contracted by cicatrization of tuberculous ulcers that no internal examination possible. Interior of mouth pale. Uvula shortened. Schneiderian membrane thickened. Tubercles on dorsum of tongue.
2	22	"	10	Advanced case. Face and body a mass of tubercles. In the asylum eight years.	Throat first affected five years ago. Nasal voice. Uvula replaced by round stump. Ulcers, irregular in shape, with defined edges and greyish slough on velum and inside of cheeks. Oval tubercles on dorsum of tongue. Interior of mouth pallid. Epiglottis enlarged, preventing view of interior of larynx. Stenosis of left nasal fossa; cicatrices of old tubercles in right fossa.
3	18	"	10	Advanced tuberculated leprosy. Suffers from exacerbations of the disease, with fresh eruptions of tubercles	Throat first affected eight years ago. Nasal voice. Wart-like tubercles on base of tongue. Deep ulcers on pharynx. On superior surface of the epiglottis a large tubercle is divided down its centre by a deep sulcus. Throat pallid.
4	13	Madeira.	4	An earlier stage of the disease. Throat first became affected three months ago during a febrile exacerbation and fresh eruption of tubercles.	Both nasal fossae blocked up with tubercles in process of softening. Infiltration in central part of uvula causing it to curl up on itself in a highly characteristic manner. Suffers from hoarseness. Epiglottis and arytenoids pale and œdematous looking. Vocal cord congested.
5	20	E. Indies.	3	Early stage of leprosy. General health fair. No anemia.	Voice normal. Tubercles on velum. On the left side the posterior pillar adherent to pharynx. Hard palate, and throat of a pale colour. Larynx normal.
6	32	Portugal.	6	Tubercles on face and body. Enlarged glands, neck and groin. Hands and feet swollen from tubercular infiltration.	Nasal voice. Hoarseness. Tubercles on both inferior turbinated bones, those on the left side bleeding. Tubercles on tonsils. Arytenoids and inter-arytenoid space thickened. Vocal bands œdematous and overlapping vocal cords. Larynx of usual pale colour, or dull white.
7	50	B. Guiana.	2	General health fair.	No throat symptoms. Epistaxis. Mucous membrane congested over turbinated bones.
8	13	"	5	Covered with tubercles, hanging in masses from his face	Nasal voice for last twelve months. Stenosis of nasal fossae from general thickening of mucous membrane, covering the turbinated bones. Congestion of fauces. Wart-like tubercles on tip of tongue.
9	14	"	4	General health not much affected	Nasal voice. Tubercles in nasal fossae. Larynx normal.
10	12	"	3	Early stage of leprosy. No anemia	Interior of mouth and larynx pale in colour. Nasal voice. Tubercles in anterior nares. No throat symptoms.
11	27	L. Indies	4	Covered with tubercles. Bridge of nose fallen in. Tubercles ulcerating round alæ	Nose affected from the commencement. Septum nasi destroyed. Extreme pallor of the inside of the mouth. Tubercle on uvula. Marked pallor of the entrance to larynx.
12	42	B. Guiana	2	General health fair	Epistaxis. Congestion of mucous membrane of nose. No throat symptoms.
13	20	"	9	General condition much improved since his admission into the asylum	No throat symptoms. Absence of nasal resonance. Tubercles bleeding in left nasal fossa. Eight large reddish-looking tubercles on dorsum of tongue. Larynx usual pale colour.
14	12	"	2	Early stage of leprosy	Nasal breathing from the commencement. Epistaxis two or three times a week. Congestion of pharynx.

No.	Age.	Country.	Duration of Leprosy.	General condition.	Condition of the air-passages.
15	13	B. Guiana	5	Disease making rapid progress. Frequent febrile exacerbations, with eruption of tubercles, when throat becomes sore and voice husky	Nasal breathing obstructed from the first. Is now very hoarse, sometimes voice reduced to a mere whisper. Throat very pale. Tubercles in nasal fossae. Epiglottis seen on opening mouth. Latter very much enlarged and glistening in appearance. The enlargement is greatest on the left side, and irregular in shape. The arytenoids are enlarged, and the ventricular bands are a bright red colour, showing well out amidst the general pallor of the larynx.
16	18	"	10	Disease making rapid progress. Masses of tubercles around the alae nasi. Enlarged cervical glands	Hoarse, rough voice. Nasal resonance absent. Hoarseness began two years ago. Epistaxis continues. Two large bleeding tubercles may be seen by nasal speculum emitting a horrid fetor. Throat pallid. Uvula bulbous. Epiglottis and arytenoids very much enlarged, preventing view of interior of larynx.
17	19	"	6	Enlarged glands in neck and groin. Covered with tubercles	Dyspnoea. Hoarse, rough voice. Stenosis of nasal fossae. Uvula destroyed. Throat pallid. Tubercles on dorsum of tongue. Enlarged epiglottis. Ventricular bands enlarged and causing serious stenosis of larynx, but not causing much embarrassment to the breathing.
18	21	"	2	General health fair...	Absence of nasal resonance. No throat symptoms.
19	21	"	6	Disease well advanced...	Voice easily fatigued. Nasal resonance gone. Epistaxis. Uvula destroyed. Ulcers in pharynx. Around the choanae are dark ulcerating tubercles blocking up the opening. Epiglottis enlarged.
20	18	"	6	Disease making rapid progress	Hoarseness commenced two years ago. Throat pallid. Uvula elongated. Epiglottis and arytenoids pale, glistening and enlarged.
21	26	E. Indies.	3	In very bad health...	Throat pale. Epiglottis enlarged—over its inferior surface varicose veins seen.
22	42	B. Guiana.	8	Disease well advanced, very little dyspnoea. No dysphagia	Hoarseness commenced two years ago. Cartilages of nose destroyed four years ago. Right side of epiglottis eaten away. Inter-arytenoid fold enlarged. Vocal cords congested, enlarged, and not approximating.
23	25	"	6	Covered with tubercles. Hands and feet a mass of foul smelling ulcers	Cartilages of nose destroyed. Inside mouth pale, and there are large single tubercles in process of ulceration. Great fetor of breath.
24	30	"	10	A mass of tubercles and sores	No dyspnoea. Hoarseness some months since. Epistaxis three times a week, from which he derives great relief. Epiglottis enlarged at upper part on the left side, giving it a peculiar lop-sided appearance. Separate tubercles on the ary-epiglottic folds. An œdematous condition of ventricular bands overlapping vocal cord. On right ary-epiglottic fold three distinct tubercles may be seen.
25	20	"	9	Advanced tuberculated leprosy	Nasal voice. Hoarseness. Posterior part of septum nasi thickened. Atrophied condition of velum. Epiglottis enlarged. Tubercles on arytenoid cartilages.
26	22	"	9	No dysphagia. No deafness or noises in the head	Nasal resonance absent. Cartilages of nose destroyed. Cicatrices have so contracted the nasal meati that Eustachian catheter could not pass in. Uvula enlarged, and bifurcated.
27	40	"	9	Advanced case. Covered with tubercles. Albuminuria	Has not suffered from his throat since the disease began. Slightly hoarse now, since the rain began to fall. Perforation through posterior pillar. Slight enlargement of the arytenoids. Tubercle on tongue.

No.	Age.	Country.	Duration of Leprosy.	General condition.	Condition of the air-passages.
23	27	B. Guiana	4	General health not much affected	Slight dyspnoea. Epistaxis occurs regularly twice a week, and began before he was aware of his leprosy. Patch of tubercular infiltration at back of pharynx, dark in colour, and with raised crescentic edges.
29	25	"	2	Early stage of leprosy	Epistaxis. No tubercles seen in either meatus or by rhinoscopic mirror. General congestion of mucous membrane. Uvula enlarged and turned to the right. Congestion of pharynx. Two white glistening tubercles on left lateral glosso-epiglottic fold.
30	30	E. Indies	4	General health not much affected	Suffers from hoarseness occasionally. A large tubercle in process of softening at back of pharynx. Lip of epiglottis enlarged. Ventricular bands thickened, and vent. of Morgagni seems more marked than usual. Arytenoids enlarged. Vocal cords a dull brown colour. Inside of mouth usual pale colour.
31	45	B. Guiana	4	Disease stationary	Suffers from hoarseness after singing or shouting. Uvula enormously enlarged. Throat too irritable for laryngoscopic examination. Nose affected.
32	40	"	1	General health very bad. Disease making rapid progress	Tubercular infiltration over both inferior turbinated bones. Throat pale. Epistaxis. Uvula enlarged. Varicose veins over velum. Nasal resonance absent.
36	50	E. India	6	Kidneys and liver affected	Speaks in a whisper. Dyspnoea. Tubercles in nasal fossae. Patches of black pigment on sides of tongue. Posterior pillar adherent. Uvula destroyed. Atrophied condition of pharynx. Very little air entering lungs. Only a stump of the epiglottis remains. Right arytenoid enlarged. Vocal cords fixed. Ventricular bands partly overlapping latter. Externally the thyroid cartilage may be felt thickened. Glands in neck swollen.
34	50	B. Guiana	4	General health fair	Nose affected. No throat symptoms.
35	25	E. India	5	General health bad	Left nostril closed up with dry crusts. Throat pale. Uvula elongated, a solitary tubercle at its lower part.
6	50	Madeira	10	In the stage of leprotic decay	Slight dysphagia. Dyspnoea. Raised tubercular infiltration over hard palate. Uvula destroyed. Epiglottis, ary-epiglottic folds, and arytenoids thickened. Vocal cords ulcerated, and of a dull brown colour. Ventricular bands seat of slight tubercular infiltration.
7	45	Barbadoes	6	Disease well advanced. Lower extremities enlarged and ulcerated. Covered with tubercles.	Cartilages of nose destroyed. Uvula gone. Back of pharynx seat of tuberculous patches. Very hoarse. Dyspnoea. A large flat-shape tubercle on free edge of epiglottis. Arytenoid thickened and ulcerated.
11		B. Guiana		Albuminuria	The uvula, soft and hard palate studded with numerous tubercles, reddish in colour, varying in size from a pea to a marble.
12		"	1	Very bad case. Face covered with pendulous masses	Nose affected. No throat symptoms. Latter, usual pale colour. Voice gets weak after singing.
13		"	1	Fair health	Epistaxis. Nose affected. No throat symptoms, but throat very pallid looking.

The following short extracts from my note book refer to cases of anæsthetic leprosy:—

Case 1: An East Indian coolie, aged fifty-three years, has suffered from nerve-lepra for fifteen years. He has never suffered from his nose or throat, although sometimes food has regurgitated through his nostrils.

There is loss of sensibility about his uvula, soft palate, and the back of the pharynx. I plunged the sharp-pointed probe deeply into the parts, and he did not wince till I went near the epiglottis. There was no paralysis of the vocal cords.

Case 2 : A negro, aged twenty-four years, who has had anæsthetic leprosy for five years. There is no loss of sensibility in any part of the throat as in the preceding case.

Case 3 : Another coolie, aged forty-five years, has had nerve-lepra for thirteen years. There is anæsthesia of the mucous membrane of the mouth, nose and eyes.

Case 4 : A coolie, aged forty-two, has had anæsthetic leprosy eight years. There is anæsthesia of the soft palate.

Case 5 : A Barbadian negro, thirty-two years, has had nerve-lepra eight years. In this case there is loss of sensibility about the velum palati and uvula, and pillars of the fauces.

Case 6 : An East Indian, forty-nine years of age, has had nerve-lepra ten years. He has lost an eye from corneal disease, and several joints from hands and feet. He has lost all cutaneous sensibility as far as shoulders and thighs. There is present an atrophied condition of the oro-pharynx, and marked anæsthesia about the uvula, velum and posterior wall of the pharynx.

The foregoing were a few out of a great many cases of nerve-lepra whose throats I carefully examined. In those patients who had had anæsthetic leprosy for more than five years there was distinct loss of sensibility in the parts I have mentioned. The anæsthesia was peripheral in its nature, nor could I find any symptoms of a central necrosis in any of the cases. In all the vocal cords acted well on phonation.

In every case of tuberculated leprosy either the nose, throat, or both, are affected. The nose is always the first to suffer, but sooner or later the throat becomes attacked in every case. This would appear to occur much later in the progress of the case in the climate of British Guiana than in Norway or other cold climates. It will also be seen from the preceding cases that severe complications of the throat may exist without much embarrassment to the patient's breathing. Tracheotomy is hardly ever called for, although, after death, the calibre of the air-passage has been found seriously diminished.

In all of my cases, without any exception, epistaxis was the earliest sign of the disease.

One case, the patient's nose bled long before he knew he was a leper, and in my work on leprosy I have alluded to the significance of this symptom as an early sign of leprosy.

Nearly every part of the throat may be the seat of leprosy tubercles, and they may also be met with in every stage of development, or, in process of ulcerating or softening. During a febrile exacerbation, when fresh crops of tubercles form externally, the throat will be inflamed and tubercles may be seen to follow in due course.

The condition of the uvula is characteristic of tubercular leprosy, but it is never affected in nerve-lepra. In the early stages it is simply congested and elongated as in pharyngitis. In course of time this will sub-

side, and be replaced by tubercular growths which in turn ulcerate and soften. The tubercle forms either at its extremity or junction with the velum. Here infiltration takes place, causing the uvula to be drawn up, as it were, or curled up on itself. Finally, the uvula disappears altogether and is replaced by a mere stump.

The pallid condition of the throat is the next in the order of events that most strikes the observer. It was found in every case of tuberculated leprosy, and from a very early stage, the throat was like that of a person suffering from pernicious anæmia, although the patient may not suffer from this disease or be otherwise bloodless.

This pale, pallid, bloodless look is consecutive to the earlier stage of congestion of the throat, which, however, does not differ from ordinary sore throat, and lepers will tell you that it is not connected with their disease, and is due to change in the weather or the rainy season coming on. It is undoubtedly the first stage in throat leprosy, albeit a very transitory one. I have only been able to observe it in a few of the cases I have examined.

The epiglottis is always affected in this form of leprosy, but at a later stage. In many the enlargement was due to tubercular infiltration, but it was also not unfrequently the seat of separate tubercular growths.

With regard to the diagnosis of throat leprosy, there are always present, long before the advent of the latter, external manifestations of the disease not likely to be mistaken for anything else; much error in diagnosis is therefore not likely to arise. Of course the disease is necessarily a fatal one, and runs its course, no matter what may be attempted for the relief of the unhappy sufferer.

In this paper no mention has been made of the morbid anatomy of throat leprosy, this subject having been ably treated by Dr. Thin, whose paper in the *British Medical Journal* of July 19, 1884, should be consulted by all interested in this subject, and to which I have nothing new to add.

If the cases given in my table are compared with Sir Morell Mackenzie's elaborate report, it will be seen how similarly the throat is affected with leprosy in countries so different in every particular, as, for instance, Norway and South America; and some good will have been done in having the descriptions of the latter confirmed by observations made on the spot where leprosy prevails endemically, and where unusual facilities exist for the study of the disease.

MOUTH, TONGUE, PHARYNX, &c.

Thirty, E.—*On Infectious Aphthous Stomatitis.* Journ. de Méd. et Chir. Pratique, November, 1889.

In a previous work the author has concluded as to the benign nature of aphthous stomatitis, even confluent. He now admits a grave variety, and

relates three cases of the affection, with infectious phenomena, rigors at the commencement, high fever, and albuminuria, etc. *Joul.*

Fidalgo.—*Contagious Stomatitis.* "Revisita de Medicina y Cirugia Prácticas," September 22, 1889.

SOME cavalry soldiers having recently arrived at the town of Sovia, complained of soreness of the mouth, and upon examination it was found that they had ulcerative stomatitis, from which also the garrison they had just left had suffered. Neither amongst the civil population nor in the other battalion which they had just joined in Sovia did there exist any similar affection. Microscopical examination revealed the presence of leptothrix bacilli in the secretion from the ulcers. Treatment was limited to scrupulous hygiene, and the use of boric acid in solution, and applications of hydrochloric acid. Fidalgo further remarks that in the year 1875 he observed among many soldiers of the garrison of Madrid an affection of ulcerative stomatitis. On the cause being traced, it was found to be due to the lime contained in the bread.

Ramon de la Sota.

Pope, F. M.—*Thrombosis of Vertebral Artery Pressing on Glosso-Pharyngeal Nerve; Unilateral Loss of Taste at the Back of the Tongue.* "Brit. Med. Journal," November 23, 1889.

THE dilated artery pressed directly upon the nerve roots; paralysis of which was shown by loss of power of swallowing, and the raising of the palate on the left side due to the unopposed action of the levator palati. The author concludes as follows: "Loss of taste limited to the region of the tongue, known to be the only part supplied by the glosso-pharyngeal nerve, with unmistakable post-mortem evidence of pressure on that nerve, leaves no room for doubt, that, as has been usually held, the glosso-pharyngeal nerve takes part with the fifth in the taste function, and I would suggest that the former is more directly concerned with the appreciation of sweetness, as even in the part supplied by the fifth as the damaged side, syrup could not be tasted." *R. Norris Wolfenden.*

Maydl (Vienna).—*Actinomycosis of the Tongue.* Internat. Klin. Rundschau, 1889, No. 42.

A PHYSICIAN, forty-eight years old, who was also a supervisor of imported cattle, was accustomed, while reading, to moisten the pages from his tongue. On one occasion he observed that he had painful rhagades on the tongue, and the next day a small tumour the size of a pea. After unsuccessful anti-specific treatment, the author finally diagnosed actinomycotic infection, and excised the tumour. The patient was shortly after cured. Examination confirmed the diagnosis. *Michael.*

Turner.—*Atrophy of the Right Side of the Tongue; Paralysis of the Soft Palate and Larynx; Atrophy of both Optic Discs.* Hunterian Society, "Lancet," December 14, 1889.

A CASE occurring in a little girl aged five. There was difficulty in swallowing fluids, and feebleness of cough, loss of power and diminution in girth of the right arm, and the knee jerks were absent. The symptoms

dated from a series of right sided epileptiform seizures, commencing six weeks after an attack of scarlatina. At first there was paralysis of all limbs, but the legs and left arm had greatly improved. There was no evidence of syphilitic inheritance, and it was thought that the symptoms were due to some specific meningeal lesion at the base of the brain, involving the ninth and portion of the eighth cranial nerve on the right side.

R. Norris Wolfenden.

Mariani.—*Tubercular Ulcer of the Tongue.* "Revista de Medicina y Cirugía Prácticas," July 7, 1889.

THE author refers to the case of a patient with symptoms of pneumonia, but without bacilli, which symptoms were observed a month after the onset of hoarseness. Intense and frequent coughing, nummular expectoration, symptoms of tubercular infiltration upon auscultation and percussion, evening fever, slight hæmoptysis and gastro-intestinal phenomena. Upon the tongue there appeared a small shallow and whitish ulcer which enlarged in size and depth until it reached the size of a shilling and extended 4 or 5 millimètres deep. Its edges were irregular and cut perpendicularly, and its surface was grey. The secretions of this contained numerous bacilli, and it was painful upon mastication and swallowing. Application of lactic acid somewhat modified this ulcer. The patient died. This case, according to Mariani, proves that the tubercle bacillus develops upon ground already altered from the normal. In other words, that the organism is already diseased when the bacillus can flourish in it.

Ramon de la Sota.

Gallardo.—*Cyst of the Tongue spontaneously opened.* "El Bisturi," June, 1888.

IN the case of a lady, a hard and circumscribed tumour on the side of the tongue rendered the movements of the latter almost impossible and produced pain. On the supposition that it was a solid tumour extirpation was proposed, but not accepted. A short time afterwards the tumour burst, giving exit to some serous fluid, after which the patient was completely cured.

Ramon de la Sota.

Shepherd, F. J.—*Sublingual Sebaceous Cyst.* Transactions of the Montreal Medico-Chirurgical Society, May 17, 1889.

THE patient, a female aged nineteen years, first noticed a swelling beneath the tongue three years ago—a year ago the swelling projected into the submaxillary region, and when seen was about the size of an orange. An incision was first made into the cyst beneath the tongue, and some fluid evacuated. An opening was made beneath the chin and the cyst drawn out entire. These cysts are congenital, grow slowly, and are somewhat rare.

George W. Major.

Lucas, Clement.—*Two Cases of Necrosis of the Alveolar Processes following Measles.* "Lancet," October 5, 1889.

ONE case occurred in a boy aged three years. Necrosis occurred on the front of both upper and lower maxillæ. Four incisors had dropped out

of the upper jaw : and in the lower it involved all the incisor sockets and two canines. The necrosed bone was removed from both jaws, and the patient cured. The second case occurred in a female child, aged three. The alveolar process of the upper jaw corresponding to the four incisor teeth dropped out, the alveolar process of the lower jaw corresponding to the four incisors and right canine, and the alveolar process of the upper jaw bearing the sockets of the molar teeth of the left side were removed by forceps. The patient rapidly recovered. *R. Norris Wolfenden.*

Nichols. Gleitsmann. Curtis.—*New York Academy of Medicine. Section of Laryngology and Rhinology, Meeting of April 23, 1889.* "New York Medical Journal," August 24, 1889.

1. A case of syphilitic adhesion of the tongue and soft palate to the posterior wall of the pharynx was presented by the author. The treatment adopted was dilatation of the contracted œsophagus, etc., by bougies, but without much result.

Dr. ROBINSON referred to the value of monochloroacetic acid in preventing adhesion of cut surfaces, and he prefers steel dilating sounds frequently used.

Dr. GOODWILLIE does not use caustics or galvano-cautery in such cases, but *gradually* frees the adherent parts by cutting, and he has separated them in one case by a plate of gold gradually interposed between them.

Other members spoke and suggested dilatation.

2. A naso-pharyngeal polypus.

Dr. GLEITSMANN showed this patient, on whom, being unable to cut the growth with a snare he had performed several galvano-cautery operations, but it had grown all the faster.

The snare was considered by those who discussed the case as the best instrument to employ.

3. A painful fungous growth, of unknown character, at the base of the tongue.

Dr. CURTIS showed this patient, who had noticed a growth behind the circumvallate papillæ, which in eight days filled the patient's mouth to the roof with its long tendrils, so that it looked like sea-weed. Its growth was attended with great pain in the tongue and throat. It was amputated, and its site of origin scraped with a sharp spoon.

4. A new cautery loop for lateral pharyngitis.

Dr. GLEITSMANN showed this instrument, which consists of an electrode armed with a loop of composite metal (iridium and platinum) in order to get great elasticity.

A new nasal electrode for faradizing the nose, naso-pharynx and larynx, and a *new nasal* forceps were also shown by the same member.

B. J. Baron.

Chervin.—*On Affections of Speech in Congenital Clefts of the Palatine Vault.* Congrès de Chirurgie, Paris, October, 1889.

THE degree of affection of the speech in these cases does not always bear any proportion to the congenital lesion. The size of the pharyngo-nasal passages appears to play the most important rôle. From the

point of view of vocal education, surgical intervention is preferable to prothesis. Lessons performed by the patient without guidance are generally insufficient. Methodic and graduated exercises of pronunciation may in one or two months procure sufficient articulation.

Joal.

Cary.—*Epithelioma of Soft Palate.* "New York Medical Journal," April 20, 1889.

A DESCRIPTION of a squamous, epitheliomatous growth the size of a split bean, and white in colour, which formed on the uvula, at the edge of the palatine arch, removed by galvano-cautery, with extensive recurrence following removal.

B. J. Baron.

Battle.—*Case of Tuberculosis of the Palate.* Medical Society, November 25, 1889.

THE history of the case of a married woman shown at the last meeting. There was a patch on the hard palate, extending backwards two inches, the ulceration being raised above the surrounding surface. He had treated it by scraping, and the application of lactic acid.

Dr. C. T. WILLIAMS observed that, while the soft palate was often affected, the disease was rarer on the hard palate. He said that if they were unable to get the better of the bacillus in such an exposed position, it augured badly for their success when it had to be dealt with in less accessible situations.

Dr. SEMON pointed out that, though they might destroy the local manifestations of tuberculosis, they could not hope to eradicate the disease by local treatment. He observed that the florid coloration of the patches was not in accord with his own experience, the colour usually being markedly pale.

Mr. CLUTTON narrated two cases of his own, and remarked that the colour of the patches varied, according to the period of the disease, from red to pale.

Mr. HARRINGTON SAINSBURY mentioned a case associated with disease of the apices of the lungs which had done well under local treatment.

Mr. BATTLE, in reply, said that there was no specific history, and anti-syphilitic treatment had not brought about any improvement.

R. Norris Wolfenden.

Fowler.—*The Significance of Perforations through the Anterior Pillars of the Fauces.* "Lancet," November 30, 1889.

THESE perforations are often seen, the majority being bilateral and symmetrical. Sometimes asymmetrical, occasionally unilateral, and always free from adhesions or contractions, they afford no evidence of syphilis, and are generally considered to be congenital deformities. The author considers that this is erroneous, as the presence of cicatricial tissue at the margins of the perforations shows them to be due to ulceration. Corresponding to the perforation there is always more or less loss of tonsil. Since paying attention to the subject the author has always obtained a history of scarlet fever or recurrent attacks of quinsy, and thinks that the lesion is most probably a sign of antecedent scarlet fever.

R. Norris Wolfenden.

Gallardo.—*Cancer of the Tonsil.* “El Bisturi,” June, 1888.

THE author extirpated a cancerous tumour of the size of a hen's egg which included the whole tonsil and a portion of the soft palate, from a man aged forty. The patient was quickly cured, but a month afterwards a voluminous tumour appeared in the mastoid region with numerous infiltrated cervical glands and signs of cancerous cachexia. Death followed.

Ramon de la Sota.

Lediard.—*Lympho-sarcoma of Tonsil; Laryngotomy and Enucleation; Recurrence in Cervical Glands; Excision; Recovery.* “Lancet,” November 23, 1889.

PATIENT had been under observation for two years, and was aged sixty-two. He had a soft, painless enlargement of the right tonsil. On October 27, 1887, a vulcanite tracheotomy tube was introduced, the pharynx stuffed with a couple of sponges, chloroform being administered through the tube. The tumour was snipped round the edge with scissors, and removed with the finger, easily shelling out. There was very little hæmorrhage. On November 7, 1887, the patient left the hospital. A gland near the angle of the jaw was left, which increased to a large size, so that on June 20, 1888, patient was re-admitted, and all the glandular enlargements removed, including some under the trapezius muscle, and behind the collar bone, and also between the cords of the brachial plexus. The sterno-mastoid, which had been cut transversely, was then stitched together. There was very little bleeding, and recovery was rapid. Microscopic examination showed the glandular disease to be the same as the tonsillar. In August, 1889, the patient was in good health.

R. Norris Wolfenden.

Cameron, J. C.—*Drain Sore Throat.* Transactions of the Montreal Medico-Chirurgical Society, April 5, 1889.

THE author endeavoured to show that when a number of cases of sore throat break out in a household, and when of an adynamic character, and accompanied by a rash resembling scarlet fever, there was usually good grounds for suspecting drainage as the cause. He detailed ten cases which occurred in one family. On examination a defect in the ventilation of the soil pipe was discovered. In six of the reported cases both severe tonsillitis and a condition resembling the ulceration of diphtheria were present.

In the discussion which followed, it was in evidence that an epidemic of tonsillitis had existed at the time when Dr. Cameron met with his cases. The possibility of a scarlatinal origin was also insisted upon. The reviewer is of opinion that defective drainage is frequently the cause of affections of the throat, not only of an acute, but also of a chronic, character. In one instance, coming under his observation, a family of five persons was attacked with painful symptoms referred to the throat. The appearance of the throat did not indicate any acute inflammatory character, but the pharyngeal region was covered with a very thin, milky-looking film, which was easily detached. All the cases presented a similar character. The illness was ushered in with vomiting, there was very

slight elevation of temperature, and the duration of the indisposition was only forty-eight hours. On examination of the drainage system, the iron soil pipe was found to have recently been broken at its outlet in the wall of the house. The sewage matter thus escaped under the flooring of the basement. Painful throats that defy all therapeutic measures are occasionally relieved by a correction of some sanitary fault in the system of house drains, and the possibility of such a cause should not be overlooked.

George W. Major.

Chiari.—*On the Localisation of Phlegmonous Angina.* "Wiener Klin. Woch.," 1889, No. 43.

THE condition rarely originates in the tonsils, and if in this situation produces only small abscesses. Its origin is usually external to the tonsils and above them in the palatine arches. Incisions give relief and should be performed. In rare cases the abscess opens into other regions of the mouth.

Michael.

Brevion (Lyoas).—*Paresthesia of the Pharynx.* Congrès Inter. de Laryngol. Paris, September, 1889.

UNDER this name the author describes a painful affection of the pharynx localized by the patient at the upper region of the tonsils and presenting no apparent lesion of the pharynx or retro-pharynx. This condition is met with in subjects who have swelling of the middle and inferior turbinates, when the middle turbinated is in contact with the septum. The galvano-cautery, electrolysis, and especially chromic acid cure this condition very quickly without there being any necessity to touch the pharynx.

Joul.

Ruault.—*On a Method of Treatment of Granular Angina by "Grattage" and Isolated Applications after Local Anesthesia.* "Archives de Laryngologie," August, 1889.

THE author protests against the abuse of the galvano-cautery in the treatment of granular pharyngitis. One burns too much; ignipuncture gives good results in voluminous granulations, but is powerless against the catarrhal pharyngitis which accompanies and causes the granulations. Ruault's method is as follows: By means of two paint brushes, No. 12 (one cut near the handle to make it hard), he makes energetic frictions upon the pharyngeal mucosa with a 10 per cent. solution of iodine and iodide of potash in distilled water, the patient having been previously cocaineised. With the hard brush the pharyngeal membrane is rubbed vigorously, especially on spots where the granules are numerous. A certain amount of bleeding results. Allowing the patient to expectorate, further frictions are made with the uncut brush. Drinking and gargling ought to be prohibited for some time after. At the end of four or six days, when the inflammatory reaction has ceased, this proceeding ought to be repeated. Two sittings are generally sufficient to effect a cure.

Joul.

Compaired.—*Pharyngo-laryngeal Neuralgia.* "La Medicina Practica," January 16, 1889.

WHILE applying a small cotton wad moistened in creosote to the throat of a boy, it accidentally fell upon the uvula, producing slight congestion with intense pain, which latter lasted three and a half days notwithstanding the use of cocaine, bromide of potassium, ice and submucous injections of chloroform and morphine. *Ramon de la Sota.*

Morejon.—*Two Cases of Stricture of the Œsophagus.* “*Revista de Medicina Cirugia Practicas*,” October 7, 1889.

ONE patient, aged twenty-three, had a stricture of the Œsophagus at the level of the diaphragmatic ring, with a second at the level of the first dorsal vertebrae, both resulting from lacerations produced by efforts to draw out a large needle, which the patient had swallowed when he was eight years old. The strictures were cured in 42 days by gradual dilatation.

The second case was that of a man with a stricture in a great extent of the Œsophagus. The diameter of the Œsophagus was restored in 45 days by catheterism performed every day with the ivory olivary catheter. In both patients, with the restoration of the food passage, nutrition was improved, and the symptoms of pulmonary tuberculosis, which had been present, disappeared completely. *Ramon de la Sota.*

Haberkorn.—*The Treatment of Acute Tonsillitis, Pharyngitis, and Diphtheria.* “*Deutsch. Medicinal Zeitung*,” 1889, No. 96.—(Salicylic acid, internally, and brushing with a solution of pepsine are recommended).

Kühn.—*Operations on the Hypertrophied Pharyngeal Tonsil.* “*Deutsch. Med. Woch.*,” 1889, No. 45.—(See report of 62 Naturforscherversammlung).

Kümmel.—*Carcinoma of the Œsophagus.* Aerztlicher Verein in Hamburg, Meeting October 8, 1889.—(Good result was obtained by the use of Leyden's permanent cannulas). *Michael.*

NOSE, NASO-PHARYNX, &c.

Gleitsmann, J. W. (New York).—*Nasal Instruments.* “*New York Medical Journal*,” November 9, 1889.

1. *A Nasal Bone Forceps.*—The forceps has the usual angle of nasal instruments. The branches, which are slender, but very strong, cross each other when the instrument is closed, thereby occupying very little space. They can be introduced through the narrowest nasal speculum to any desirable depth, and, on account of their smallness, do not obscure the field of vision. The chief point distinguishing it from other devices is the location of the joint near the distal end, by which arrangement great power can be exerted when the blades seize the part to be removed.

The design had its origin in the desire to extract pieces of septal cartilage, or, still oftener, bones which had been operated upon either with the nasal trephine or the saw. Especially in using the saw, the

severed bone was often found to be difficult of removal on account of being firmly embedded in the stenosed canal or still adherent to the septum by a shred of undivided mucous membrane. The failure to extract the bone with a slender forceps and the difficulty of overlooking the field when using a stronger straight forceps led to the construction of the instrument.

Although intended only for removal of bone which had been operated upon, quite recently a foreign body, a shoebutton, which yielded to no other instrument, was extracted from the nostril by the aid of the forceps, having blades with three prongs, as shown by the second drawing.

2. *A New Nasal Dilator.*—The dilator here described is made from the wood of the *Nyssa aquatica*, or tupelo-tree of the Southern States, which was first introduced into medical practice by Dr. G. E. Sussdorf. It expands very rapidly and equably, and is therefore preferable to laminaria, which swells irregularly, and consequently exerts unequal pressure. Its surface is smooth and does not lacerate the tissue when introduced into a narrow opening. After removal, the tissues do not appear dry, but even more moist and pliable than before. Tupelo has also to a certain degree, antiseptic properties; it does not favour decomposition, and no smell is perceptible after it has been extracted. Its chief advantage for our purpose, is the softness of its texture, which enables us to cut it into any desirable shape with an ordinary knife.

The writer was for some time in search of an agent to produce sufficient dilatation of naturally narrow nostrils, which did not require active interference—viz., which did not present a turbinated hypertrophy or a septal exostosis. Further, cases often presented themselves for treatment in which after such operations sufficient space could not be gained for satisfactory nasal drainage, or in which the danger of subsequent formation of adhesions was imminent. The soft rubber tubes and similar devices did not fulfil the requirements, and a more thorough and efficient method seemed highly desirable. Tupelo, to which the writer's attention for this purpose was first drawn by Messrs. Tiemann & Co., has proved to him so eminently satisfactory that he considers it his duty to lay the results of his experience before the profession. He has employed it now in about a dozen cases, and in no instance has it failed to meet his expectations. A single case may serve as an illustration: A patient with naturally very narrow nostrils and bilateral exostoses on the lower part of the septum suffered from almost complete obstruction of the nares, the lateral walls and the septum being in immediate contact with each other without the presence of true turbinated hypertrophy. On one side the septal exostosis had been removed by a physician, but the operation had not given the desired relief. The introduction of the tupelo dilator four times opened the nostril enough for all practical purposes, and no contact of the parts took place afterward. The other nostril was treated in precisely the same manner, tupelo being introduced after the wound from the nasal trephine had healed sufficiently, and the result was equally satisfactory. The writer feels confident that he has materially shortened the time of treatment of suitable cases since applying the tupelo dilators, and he would feel loath to part with them.

The manner of application is very simple. After the nostril is thoroughly cleansed with a disinfectant solution and anaesthetized with cocaine, a piece of tupelo is cut to correspond to the required size, seized with an ordinary forceps, and introduced to the desired depth. After remaining in the nose for fifteen to twenty minutes, the expansion is accomplished and the piece, generally swollen to quadruple its size, removed. After another cleansing, the patient can be sent home, or, as has been the author's custom lately, a piece of tinfoil, which also can easily be shaped according to the requirements of the case, is inserted, to prevent contact of the parts, if there should be such an indication. The tinfoil may remain with impunity till the patient pays his next visit. It has been found most convenient to have the tupelo made up in pieces of six inches by an inch and a half.

R. Norris Wolfenden.

Robinson, Beverley.—*An Ordinary Case of Nasal Catarrh.* "New York Medical Journal," June 15, 1889.

THIS patient was presented to the New York Clinical Society, having suffered from frequently recurring nasal catarrhs, for which cocaine had been extensively used and no permanent benefit had been produced by douche or sprays. The patient had suffered from tetanic spasms of the side of the head and neck, which were occasionally brought on by mouth breathing; since ceasing to use cocaine the spasms had been less frequent and severe. Dr. DELAVAN had often heard from intelligent patients that nervous troubles were produced by cocaine. Dr. FLINT related particulars of a case of reflex cough produced by hypertrophy of inferior turbinated bodies.

B. J. Baron.

Robinson, Beverley.—*A Brief Summary of Nasal Catarrh and its Treatment.* "New York Medical Journal," June 15, 1889.

THIS paper refers mainly to hypertrophic rhinitis, and after pointing out the causes, general and local, of the condition, the author enters into the question of treatment at greater length. He believes that douches, as usually employed, only cleanse the inferior turbinated bodies and a portion of the middle turbinateds, but not the upper part of the nasal passages; also he has known them cause median otitis, and he has never seen them cure catarrh; therefore he prefers sprays for cleansing purposes, but not for treatment, because of the impossibility of confining the diagnosis to a small area. Powders he likes better than douche or spray, and for the median and anterior portion of the nose he employs oily substances, e.g., ointments or a spray of carbolic oil. Steam inhalations are bad, but dry vapours are often very valuable.

Cubeb is useful where the catarrhal dyscrasia is pronounced and the digestion good; sulphur in spray, or internally, may help, ammoniacum is open to the objection of hardening the secretions.

If all the above measures fail, then cauterizing by means of nitric acid, glacial acetic acid, or chloracetic acid, the last being the best of these three, and never giving rise to adhesions, the slough not separating until the mucous membrane beneath is nearly healed.

Chromic acid ought to be tried if these fail, and if brought into contact

with soft parts everywhere, there is very little danger of toxic effects following its use.

Deviation of the septum, if sufficiently pronounced to cause obstruction, is treated by galvano-cautery, Jarvis's or Weir's cutting forceps, if anteriorly, the trephine is preferred by the author to the saw.

Lastly, Dr. Robinson pleads for a broad-minded view of the whole situation in treating a case of nasal catarrh, viz., the surroundings of the patient, climate, sanitary conditions, general health and temperament and local conditions.

In the discussion that followed the reading of this paper the galvano-cautery was preferred to any acids for cauterizing purposes by Dr. Delavan, also he likes the saw better than the trephine.

Dr. Hunt uses the douche, and likes it.

B. J. Baron.

Knight.—*The Diagnosis and Treatment of Certain Forms of Rhinitis.* "New York Medical Journal," July 13, 1889.

THIS paper was read before the Section of Laryngology of the New York Academy of Medicine, and after defining carefully the terms hyperæmia, hypertrophy, and hyperplasia, the author goes on to discuss the symptoms and treatment of rhinitis. The special points to be noted are the colour of the surface, the character of the nasal secretion, the extent and shape of the swelling, its density or resistance, its sensitiveness, and its vascularity.

The behaviour of an enlarged turbinated body on touching it with the probe before and after the use of cocaine in mere hyperemia and also in hyperplasia is discussed.

As to treatment, the author considers that it is impossible to exaggerate the influence of constitution and diathesis, but he says as regards local treatment, "sprays, douches, vapours, medicated bougies, ointments, and "powders may be used according to the taste or credulity of the practitioner." Sedative steam inhalations and preparations of medicated vaseline or oil are usually most grateful and least harmful, and fluid alcohol is a good medium and may be used in spray form. Astringents are of doubtful value. Cocaine temporarily relieves stenosis, but its frequent and habitual use may do serious damage. Under proper precautions the spray is a valuable, if not an essential adjuvant in the treatment and cure of catarrhal conditions.

The indications for intranasal surgery are interference with the respiratory and olfactory functions, reflex neurosis caused by nasal disease, and, lastly, in order to remove a deformity, a neoplasm or a hypertrophy, and so bring about free nasal drainage.

B. J. Baron.

Cozzolino (Naples).—*Rhinitis Caseosa.* Congrès de Laryngol., Paris, 1889.

THE author remarked that he had studied caseous rhinitis since 1884. He relates a third case which he has observed for some months. He maintains the morbid entity of this disease, and opposes the opinion of Potiquet that it is a complication of other nasal affections. To cases in which caseous masses resulting from pus, secretions, and desquamations are present within the nose, he gives the name of pseudo-caseous rhinitis. In the first period of the complaint the mucous membrane alone is

affected, in the second, there are lesions of the skeleton, caries or fistula, and the disease may be then confused with malignant tumour. *Joal.*

Bories.—*The Nature of Caseous Coryza.* Congrès de Chirurgie, Paris, October, 1889.

WRITERS disagree very much as to the nature of this curious affection, which has been termed caseous coryza. According to Duplay it is an epithelial exfoliation, following on erysipelas, with an accumulation of the secretive products. According to Cozzolino it is a sequel of scrofula. Many other opinions have been advanced. The author, from the perusal of old observations, from studying them, and making careful examination of patients that have come under his care, is led to the belief that this condition is a retrograde or necrobiotic process of old polypoid masses, produced by the influence of the compression which these masses undergo in the nasal fossæ. He refers to the frequent coincidence of these two affections, which was especially marked in one particular observation, which formed the text of his memoir. A woman of fifty-nine had the nasal fossæ obstructed by a tumour which he recognised during the operation to be no other than a caseous coryza. The mass which formed the tumour would certainly have filled a wine-glass. Its odour was rather sickly than fœtid. The author could only come to the end of it by regular sponging of the nasal buccal cavity. *Joal.*

Schneider (Köln).—*Some Cured Cases of Epilepsy of Reflex Nasal Origin.* "Berl. Klin. Woch.," 1889, No. 43.

1. A patient, fourteen years old, since five years of age had violent epileptic attacks three to four times a week. Galvano-cautery applications were made to the hypertrophic nasal turbinateds. A complete cure was obtained which has lasted for four years.

2. A lady, twenty-four years of age, had epileptic attacks at the commencement of every menstrual period. Large doses of bromide of potassium were given without effect. Galvano-cautery treatment was applied to the polypoid degenerated turbinateds. A cure has lasted for three years.

3. In a similar case the galvano-cautery applied to the turbinateds effected a cure.

4. A patient, thirty years of age, frequently had asthma and sometimes epilepsy. A growth of the size of a pea was discovered on the right inferior turbinated. On touching it, an epileptic attack was produced. After galvano-caustic treatment the patient was cured.

5. A lady, seventy-two years of age, had chronic coryza, facial twitching, and nystagmus, with true epileptic attacks. Galvano-cautery treatment of the right hypertrophied turbinated effected a cure.

Michael.

Von Stein (Moscow).—*The frequent Connection between Diseases of the Nose and Neuroses of the Heart.* Monatssch. für Ohrenheilk., 1889, Nos. 9 and 10.

THE author has observed in a total of 530 cases of nasal disease, 127 cases of reflex neurosis (24 per cent.). Amongst these, cardiac neuroses

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occurred in fifty cases (93 per cent.). In three cases there was a feeling of oppression in the region of the heart, in eleven cases, palpitation, and in thirteen cases, pains of the cardiac region; in other cases the symptoms were complicated. The intranasal condition in most cases was hypertrophy of the turbinated bodies, and the treatment consisted in cauterisations of these organs. *Michael.*

Lichtwitz (Bordeaux); **Gorris** (Brussels). — *Nasal Reflexes.* Congrès de Laryngol., Paris, 1889.

THE former enters into a long history of the question quoting German authors extensively, but ignoring French writers. The latter related two or three examples of facts already well known. *Joal.*

Wagnier (Lille). — *Lupus of the Nasal Mucous Membrane.* Congrès Inter. de Laryngol., Paris, September, 1889.

THE author related a case of lupus of the mucous membrane of the turbinated bodies, which appeared under the form of soft whitish nodules without ulceration. In spite of the coincidence of cutaneous lupus, he came to the conclusion that the disease of the turbinateds was primary. The nature of the affection was proved by microscopic examination and experimental inoculation. The patient was completely cured by the employment of the galvano-cautery, and lactic acid. *Joal.*

Fowlerton. — *A Perforation of the Septum Nasi occurring in Cement Workers.* "Lancet," August 17, 1889.

A ROUND opening, situated a little above the columna and close to the floor of the nostril, is a very common form of perforation of the cartilaginous septum in workers in cement factories. Its size varies, and beyond a little discharge from the ulcerating edges, there is no inconvenience. It is probably caused by dry cement dust accumulating in the nostril, necessitating the frequent use of the finger. It has no connection with syphilis. *R. Norris Wolfenden.*

Garel (Lyons). — *Electrolysis in Nasal Obstructions from Thickening of the Septum.* Congrès Inter. de Laryngol., Paris, April, 1889.

THE author has employed electrolysis in thirty patients operated upon by the process recommended by Miot, which consists in placing one or more platinum needles connected with the positive pole into the deviated and hypertrophied portion of the septum, placing the negative pole at a distance. *Joal.*

Lubet-Barbon (Paris). — *Hypertrophy of the Turbinateds as a Cause of Weeping.* Congrès de Laryngologie, Paris, September, 1889.

FROM facts observed by the author he is certain that running from the eyes exists in some cases without any ocular lesion. The mucous membrane of the lachrymal canal and sac is normal, and all ocular treatment remains without result. In cases of this kind there exists an hypertrophy of the inferior turbinated, which is red, and indicates the use of the galvano-cautery for the destruction of the erectile tissue. *Joal.*

Milligan (Northampton).—*The Treatment of Severe Cases of Nasal Polypus.*

“Brit. Med. Journal,” November 16, 1889.

THE method employed by the author in one case after having failed with a snare and forceps six times, was to put the patient under chloroform, and with strong serrated forceps to wrench away the superior and middle turbinated bones “as completely as possible.” He believes that that is a method of treatment “which is invaluable in severe cases of nasal polypus.”

The “British Medical Journal” of December 14, 1889, contains a memorandum from Mr. W. R. H. Stewart, reminding the author of the above communication that the removal of the growth is only a preliminary step in the treatment of the disease, the essence of which consists in the thorough application of the galvano-cautery to the spot from which the polypus springs, and if Mr. Milligan will in future give this a trial, he will not find so many cases resist treatment, and will not have to resort to the extreme measures he refers to.

Mr. Stewart thus concludes with these sensible remarks:—“Secondly, “surely Mr. Milligan has made a mistake when he says he wrenches “away the ‘superior’ turbinated bone. This bone is small, and invisible “by anterior rhinoscopy, and I certainly have never before heard of its “removal for nasal polypi, these growths usually being grouped about “the middle bone, which, like the superior, is a process of the ethmoid, “unless it is rendered absolutely necessary by necrosis or excessive “hypertrophy, and in these cases I would suggest to Mr. Milligan that “he should give the snare a trial; it answers every purpose, and avoids “all the risks run by the forcible use of forceps.”

(Mr. Milligan’s method of procedure cannot be sufficiently condemned; it is both barbarous and dangerous).

R. Norris Wolfenden.

Schiffers (Liège).—*The Anatomico-Pathological Transformations of Nasal Myxomata.* Congrès Inter. de Laryngol., Paris, September, 1889.

THE transformation of benign into malignant tumours is now demonstrated clinically, and by pathological anatomy. It has, however, for a long time been in doubt, and is even still so in the case of myxomata of the nasal fossæ. The author presented at the Congress a series of microscopic preparations obtained from tumours occurring in two patients, in which the transformation of the myxomata is evident. In the one the tumour has become epitheliomatous, in the other the neoplasm is in a transitional state. Myxomata, therefore, may be transformed into malignant growths. It is necessary to be on one’s guard against this transformation, or against the possibility of the malignant nature of the tumour when a unilateral nasal obstruction is observed, due to a neoplasm in a subject who has passed middle-age, and when the seat of the tumour is abnormal (vault, septum, floor of the nasal fossæ). The indication will be to operate the more quickly and as completely as possible, either with the loop or the galvanic knife, and to follow the operation with strong antiseptic irrigations so as to guard against possible auto-infection.

Joal.

Goodwillie.—*Deafness as a result of Nasal and Dental Diseases.* "New York Medical Journal," August 24, 1889.

THE naso-pharyngeal diseases that act as factors in the production of middle ear disease are as follows :—Hypertrophic rhinitis, bone hypertrophy and deflected septum ; growths in the nose or naso-pharynx, which either close up the Eustachian tube by mechanical pressure, or induce catarrh in it. Atrophic rhinitis by extension to the Eustachian tube, tympanum, etc. ; hypertrophy of the tonsils by impeding the action of muscles that have to do with intra-tympanic air renewal ; hypertrophy of the palate ; paralysis of the palate and cleft palate.

After describing the nerve connections between the ears, nose, and teeth, the author says : "The same influence that produces a reflex nervous action from an erupting tooth may set up nasal catarrh, and this may end in ear disease. Middle ear disease must be preceded by catarrhal disease of the intranasal mucous membrane."

He treats nasal catarrh with a cleansing spray of 15 per cent. solution of peroxide of hydrogen, after the use of which, a piece of cotton wool is used to cleanse then naso-Eustachian orifice, and then Politzerization is employed. He treats otitis media and "Eustachitis" by inflation of the tympanic cavity with medicated vapour, and he has had good results from the employment of medicated vapours, and from the employment of medicated vaseline, melted by heat, and vaporized by a suitable instrument.

The author quotes a number of illustrative cases and figures several instruments such as the electric nasal catheter, tongue depressor and palate retractor, and nasal intubation tubes.

In the discussion that followed the reading of this paper :—

Dr. SMITH did not believe that a vapour could be made to traverse the Eustachian tube.

Dr. ROBINSON very rightly insisted on the fact that a very large number of cases of deafness depend on nasal and naso-pharyngeal disease. He believed that the atrophic forms of nasal disease are most active in producing ear troubles. He used compound tincture of iodine with much benefit in atrophic and hypertrophic rhinitis, and he liked cosmoline, which is liquid at ordinary temperatures as a vehicle for instances in the treatment of nasal catarrh.

Dr. WEBSTER laid stress on the fact of the throat and nose being usually the parts primarily at fault in ear disorders.

Dr. POMEROY did not believe that dental troubles cause otitis, though they do cause otalgia. He did not like the aural douche. He advised inflation of the middle ear as a help to diagnosis ; if it is swollen there would be an excess of air that would not empty itself from the tympanic cavity.

Dr. CRETTS had treated a great many cases of deflected septum, and had cured tinnitus aurium and otitis media thereby ; he believed that there must be a large supply of air through the inferior meatus of the nose, and it is not enough to have the middle meatus full.

B. J. Baron.

Suarez de Mendoza (D'Angers).—*The Galvanic Current in the Treatment of Affections of the Nasal Fossæ.* Congrès Inter. de Laryngol., Paris, September, 1889.

WITH the electrodes of Désarenes and currents of the strength of 15·25 milliampères scarcely perceptible eschars are produced. The good effect is due to trophic action rather than the "chemical galvano-cautery." For this reason the author proposes the employment of an electrode "a pression," assuring the intimate contact of the metallic plate with the mucous membrane, and which permits the use of a current of 25 milliampères, producing an eschar of the same size as the plate, and which is eliminated from the 6th to the 12th day. If the electrode is enclosed in absorbent cotton the patient supports well a current of even 40 milliampères, which rapidly reduces congestion of the nasal mucous membranes, and may temporarily cure ozæna. *Joal.*

Potiquet (Paris).—*On the Shape of the Nose in True Ozæna.* Congrès de Laryngologie, Paris, September, 1889.

THE flattened and saddle-shaped nose, so far from being a precedent condition in ozæna, is consecutive to this process. The thinning of the nasal relief results from a pathological process of slow nature, from atrophic rhinitis which does not spare the external membrane of the nasal fossæ at the level of the nasal bones. Rhinoscopic examination shows also that there, as elsewhere, lesions of the mucous membrane and osseous structures exist. Flattening of the nose results from various circumstances, such as heredity, duration and intensity of the atrophic process and youth of the subject. *Joal.*

Delstanche (Brussels).—*Treatment of Certain Nasal and Retro-nasal Affections* Congrès Internat. de Laryngol., Paris, September, 1889.

FOR replacement of the septum it is necessary to add to the metallic internal plates, the employment of which gives rise to necrosis of tissues, external plates of gutta-percha fixed by means of whalebone forceps. In order to avoid the hæmorrhages so frequent in removal of mucous polypi, Delstanche employs a galvanic loop. He removes retro-pharyngeal adenoid tissue by means of an adenotome, "à cuvette," which differs from that of Gottstein by the addition of a jointed metallic box, concave in the posterior surface of its cutting space. *Joal.*

Chiari.—*Empyema of the Antrum of the Highmore.* Gesellschaft der Aerzte in Wien. October 25 and November 6, 1889.

THE author referred to the anatomy of the cavity, the various causes of empyema and its treatment.

BILLROTH remarked that it is often difficult to determine which is the diseased tooth, which gives rise to the affection. After its extraction he introduces a little cannula through the alveolus, and in severe cases he extirpates the whole mucous membrane of the cavity.

ROTH remarked that empyema is common and that the electro-diaphanoscopy of Voltolini and Heryng is not a very accurate method of diagnosis, as the bones of the cavities are often of very variable thickness.

He has abandoned the method of opening through the nasal wall, and prefers the extraction of a tooth.

WEINLECHNER related two cases cured by the method of Miculicz.

SCHEFF recommended opening the cavity through the anterior wall.
Michael.

Heryng (Warsaw).—*The Diagnosis of Empyema of the Antrum of Highmore by Electric Transparency.* Congrès de Laryngol., Paris, 1889.

HERYNG following Voltolini indicates a new sign of this disorder. In a dark chamber, he illuminates the mouth with a small electric lamp placed above the tongue. There are then seen beneath the inferior eyelids, two "taches" of very bright red, more or less extensive according to the size of the maxillary cavity. In the case of tumour, or empyema of the cavity, this transparency is suppressed. In ten cases which he has observed, he has always found this sign present, and has seen the transparency reappear when the pus has been evacuated, and the cavity cleansed.
Joal.

Bryant.—*The Influence on a Naso-Pharyngeal Growth of Simultaneous Ligation of the External Carotid.* "New York Medical Journal," May 11, 1889.

THE patient on whom the operation was performed had polypoid obstruction of the left nostril in 1884. From 1885 to 1888, portions of the growth were removed by snare and forceps, and it was proved to be a myxo-sarcoma, attached to the basilar process of the occipital bone, to the posterior and left wall of the pharynx, to the palate bone, and the internal pterygoid plate of the sphenoid. Severe hæmorrhage occurred spontaneously on various occasions, and there being considerable pressure on the hard and soft palate, and on the neighbouring nerves, causing great pain, and free bleeding on careful examination. In June, 1888, both external carotids were tied. At the end of a week pain had ceased the tumour was much diminished in size, and there was almost no bleeding on examining the growth. At the end of June, 1888, the left superior maxilla was removed almost bloodlessly.

The growth has been operated on by snare and injections of carbolic acid and is steadily lessening in size. The operator considers that the retrogression of the tumour is to be ascribed mainly to the ligation of the carotid, helped by the use of the carbolic acid injections, which would condense the tissues of the growth.
B. J. Baron.

Lavrand (Lille).—*Adenoid Growths a Cause of Prof. Mutism.* Congrès de Laryngologie, Paris, 1889.

ADENOID growths in the naso-pharynx give rise to two principal groups of symptoms, viz., respiratory and auditory. Besides these affections of pronunciation arise dependent upon vicious conformation of the organs, and incomplete or abolished audition. Deafness is ordinarily temporary, but cases arise in which it exists for an indeterminate period, as in one case for a year, in another for four years. In such cases, if young infants are rendered totally deaf, they may become deaf mutes. Three times out of five, ablation of the adenoids has restored hearing to deaf children,

aged three to five years, and subsequently speech, which they had never before had. Ablation of these growths may therefore accomplish the disappearance of deafness and mutism. *Joal.*

Hingston, W. H.—*Pharyngeal Fibroid.* Transactions of the Montreal Medical-Chirurgical Society, May 3, 1889.

THIS growth—the attachments of which were to the basilar process of the occipital bone and the body of the sphenoid—had attained the size of an orange. The tumour was removed by enucleation with the finger-nails. One index finger was introduced into the left nasal chamber by way of the nostril, while the remaining index finger was introduced behind the soft palate. Gradually the fingers met, and the growth was removed. The hæmorrhage was alarming. *George W. Major.*

Dorn.—*Rhinoscopia Posterior: A New Method recommended for Operations in the Naso Pharynx.* "Lancet," November 30, 1889.

THE patient is placed on a couch in a supine position, the head hanging over the edge and strongly bent backwards, so that the plane of the face is almost vertical. The soft palate and uvula must be fixed by a self-retaining hook and the tongue must be depressed. The surgeon with a reflector sits on a low chair opposite the head of the patient. With the mirror the rhinoscopic image can be seen with remarkable clearness, especially the roof of the nasal pharynx, the tonsil of Luschka, and the posterior wall of the nasal pharynx. The method is not suitable for diagnosis, but for operation, the eye being able to control any movement of the instrument. The position of the head also prevents saliva, blood, or portions of tissue from falling into the larynx.

R. Norris Wolfenden.

Bresgen.—*On the Importance of Obstructed Nasal Respiration, especially in School Children, with its especial relation to the loss of Intelligence and Memory.*—(A reprint of a paper read in the 62 Versammlung Deutscher Naturforscher und Aerzte. (See this Journal, November, 1889.) Leopold Voss, Hamburg and Leipsig, 34 pages.

Bungener.—*An Extensive Kerato-Papilloma of the upper part of the Nose.* Langenbech's Archiv., Band 39, Heft 2. (See this Journal, November, 1889.)

Krakauer.—*Intranasal Synechie and their Treatment.* "Deutsch. Med. Woch.," 1889, No. 44. (See this Journal, November, 1889.)

Schech.—*The Diseases of the Accessory Cavities of the Nose.* Second Edition. Deuticke, Leipsic and Vienna, 1889. (A very complete review of the subject.) *Michael.*

Luc.—*Abscess of the Maxillary Sinus: a Study of the recent works published on the Subject.* Archives de Laryngologie, June, 1889. (An excellent review of the subject, with numerous original observations.) *Joal.*

LARYNX, &c.

Nicaise.—*Physiology of the Trachea and Bronchi.* Congrès de Chirurgie, Paris, October, 1889.

THE author, who during the year 1864 performed a difficult tracheotomy, and on introducing his finger into the trachea was surprised with the sensation of constriction which he experienced, then conceived the idea of making some researches upon the rôle of the trachea and bronchi in respiration. His experiments were conducted in the laboratories of Paul Bert and Bouchard. He concludes from the experiments that in the normal state the trachea is in continuous contraction during both periods of respiration, a phenomenon explained by the elastic tissue which is contained in the trachea. The membranous portion permits it to dilate. During dilatation the trachea would act after the fashion of an elastic tube compressing the air in its interior, and would play a considerable rôle in phonation and singing. During expiration there would be a certain degree of dilatation, and, during inspiration, of constriction.

So far as the bronchi are concerned the phenomena are very different, according as we have to do with the extra-bronchial divisions or the intra-pulmonary branches. The former will dilate during expiration, and constrict during inspiration. The opposite takes place for the intra-pulmonary rootlets of the bronchial system.

Nicaise also studies the rôle of the bronchi in expectoration, also hernial tumours of this region or tracheoceles. *Joal.*

Hall, de Havilland.—*Acute Catarrhal Laryngitis.* "Lancet," November 23, 1889.

NOTE of a case read at the Medical Society, in which symptoms of laryngeal stenosis developed with great rapidity in a lady, aged fifty-six. There was much swelling of the epiglottis, ary-epiglottic folds, and vocal cords, the pharynx and tonsils being normal. There was albuminuria and slight basic pulmonary congestion. Dr. Hall scarified freely, and applied an ice-bag, administering also iodide and bromide of potash, under which treatment the patient rapidly recovered.

In the discussion nothing new was elicited. Dr. Hall favoured the internal and external use of ice in acute cases occurring in young adults, in which there was high temperature, while cases with chest complications were more benefited by warm, moist treatment. Where pharyngeal inflammation occurred the case was almost invariably of septic origin. He rather preferred intubation to tracheotomy. *R. Norris Wolfenden.*

Peltesohn (Berlin).—*On Oedema of the Larynx.* "Berlin Klin. Wochenschr.," No. 43, 1881.

THE author does not believe that primary laryngeal oedema exists. Such cases are only looked upon as primary because the underlying condition is not discovered. He relates an instructive case in the

practice of Prof. Fraenkel, who was called to a patient who had a sudden attack of laryngeal œdema, and died before tracheotomy could be performed. The autopsy proved the presence of renal atrophy, of which he had not previously manifested any symptoms. Examination of the laryngeal tissue showed it to be so filled with round cells that acute laryngitis must have been the cause. The author then refers to other causes of œdema of the larynx, such as infectious diseases, the use of iodide of potassium, angio-neurotic œdema (Strübing), and refers to the communication of Dr. C. W. Glasgow, concerning an epidemic of laryngeal œdema observed in St. Louis during two years. The disease is rare in patients under fifteen years of age, occurring commonly between the ages of fifteen and fifty, and accompanies general diseases as well as local affections. The diagnosis is evident from the characteristic voice, the stenosis, and most especially the laryngoscopic examination. Prognosis is rather unfavourable. Out of 213 cases, 158 patients died. Therapeutics, which formerly consisted of application of antiphlogistic remedies, consists now in the use of ice, injections of pilocarpine, scarifications and tracheotomy when needed. O'Dwyer's intubation may be used.

Michael.

Thrasher.—*Laryngeal Syphilis.* "The American Practitioner and News," June 8, 1889.

THIS is a brief *résumé* of the symptoms and treatment of syphilis of the larynx.

B. J. Baron.

Botey (Barcelona).—*Koch's Bacillus, as a Means of Diagnosis in Tubercular Laryngitis.* Congrès de Laryngologie, Paris, September, 1889.

THE author has examined 97 cases of laryngeal tuberculosis for the bacillus of Koch, and has met with it in only 6 cases. This result is the more striking inasmuch as the bacillus was constantly found in 500 cases of pulmonary tuberculosis, and Botey concludes that the tubercle bacillus has but little importance as a means of diagnosis of tubercular laryngitis.

Joal.

Peinado.—*Iodol in Tubercular Pharyngo-Laryngitis.* "Gaceta Médica" de Granada, March 31, 1889.

THE history is recorded of a case in which, under a spray of iodol used twice daily, the pharyngo-laryngeal inflammation was ameliorated; the tubercular ulcers began to heal, the cough and expectoration became less, and the latter was no longer blood-tinged.

Ramon de la Sota.

Cadier.—*Primary Laryngeal Phthisis acquired by Cohabitation.* Rev. Gén. Clinique et Thérap., October 12 and 19, 1889.

THE author has observed six patients with laryngeal lesions very advanced, in whom auscultation showed very slight pulmonary affection. In these six patients, the contagion arose through cohabitation with a tubercular husband.

Joal.

Schnitzler (Vienna).—*Diagnosis and Treatment of Laryngeal Tuberculosis.* Congrès Inter. de Laryngol., Paris, September, 1889.

CERTAIN authors maintain that in phthisical patients all ulcerations are tubercular. The opinion is based on facts badly observed or badly interpreted, for there exist catarrhal ulcerations which are situated on the anterior portions of the cords and on the inter-arytenoid region. Their contour is hyperemic, and not anemic as in the case of tubercular ulcerations. They are, moreover, cured without giving rise to cicatrices. The presence of small miliary and sub-miliary nodules is of great value as a means of diagnosis. Balsam of Peru, as a local application either in inhalations, sprays, insufflations, or swabbings, gives good results. It may be mixed with elastic collodion, and applied to the diseased spots, which are thus shielded from the pulmonary secretions. *Joul.*

Gouguenheim. *Papilloma and Tuberculosis of the Larynx.* Congrès Inter. de Laryngol., Paris, September, 1889.

TUBERCULAR laryngitis may appear under the form of circumscribed, non-ulcerated tumours, which are of two kinds. They may have a structure indubitably tubercular as all are agreed upon. They may also be constituted of typical papilloma. These papillomata, when inoculated, may give rise to tuberculosis. They may be multiple, enormous, confluent, or of quite small volume, and isolated. Recurrence is a constant character, and occurs in most cases. *Joul.*

Luc (Paris).—*On a Case of Laryngeal Tuberculosis of Sclerous Form.* Congrès de Laryngologie, Paris, 1889.

THE case was related of a woman who presented hypertrophic fibrous masses in the arytenoid region, occasioning dyspnea and stridor. Attempts at direct extraction having been followed with attacks of suffocation, tracheotomy was performed, and the tumour removed. The author cited other cases observed by himself, concluding that there exists in the larynx a special region characterised anatomically by its dermepapillary structure, and which is the frequent seat of similar hypertrophies arising from irritation (alcohol, tobacco, excessive vocal use), or from syphilitic or tubercular processes. In the particular case of tuberculosis, the tubercular elements may be so much in a minority in relation to the fibrous tissue, that they may be overlooked by the histologist who seeks for them in the excised fragments. *Joul.*

Gouguenheim (Paris).—*Prolapse of the Ventricle of Morgagni and Tuberculosis of the Larynx.* Congrès de Laryngologie, Paris, 1889.

THE author related five cases of prolapse of the ventricle. In three patients there was tuberculosis, the fourth was probably tubercular; in one case only was the tubercular origin not certain.

Cure has been obtained in one case by the galvano-cautery; replacement cured another case. The seat of the prolapse has always been the right side, and the accident has apparently been caused by coughing.

Gouguenheim believes that prolapse is more common than is usually thought, but the mode of its production is difficult to determine since exact anatomico-pathological observations on this point do not exist. *Joul.*

Gerster.—*Removal of a Tuberculous Tumour of the Larynx by Laryngopharyngotomy.* "New York Medical Journal," April 20, 1889.

THE object of the paper read by Dr. Gerster was to advocate removal by operation of secondary deposits of tubercle, not only on account of the improvement that manifests itself locally, but also that the lung mischief and the general symptoms become less active. *B. J. Baron.*

Vineberg.—*A Case of Laryngismus Stridulus and Eclampsia, associated with Rachitis, with some Remarks.* "New York Medical Journal," June 8, 1889.

CASE of a male child, aged nine months, who suffered from severe frequent attacks of difficulty of breathing, cyanosis, and occasionally of general convulsions. In the intervals the child was fairly well, but was markedly constipated, perspired freely about the head, and kicked off its bedclothes at night. The child was found to be rachitic, and was cured by bromide of potash, ten grains night and morning, and phosphorized cod liver oil.

The author draws most elaborate distinguishing symptoms between laryngismus stridulus and laryngitis stridulosa or false croup, with which it is, the author states, and we think most truly, most liable to be confounded. Fortunately the treatment of the two pathological conditions, which the author considers so different is the same. *B. J. Baron.*

Cartaz (Paris). — *Laryngeal Ictus.* Congrès Inter. de Laryngol., Paris, September, 1889.

THE author communicated four cases, two being in gouty and arthritic patients, a third, an alcoholic-syphilitic, and the fourth, a tabetic. In the first case, the laryngeal excitation seems to have originated in hypertrophy of the adenoid tissue of the base of the tongue rubbing against the epiglottis. Cauterisation of the hypertrophic tissue led to the disappearance of the attacks of coughing and vertigo. In all the cases the phenomena of laryngeal ictus were identical. Without any premonitory sign other than a tickling in the throat or an attack of coughing, the patient suddenly fell, and was unconscious for a period varying from a few seconds to one or two minutes or more. The cases observed by Cartaz do not differ from those already described by Charcot, Krishaber, and Massei. The cause of these attacks is a reflex excitation conducted from the mucous membrane of the larynx, or back of the throat; an excitation of which a coughing attack is only the first manifestation. The irritation is conducted to the bulbar centres by means of the pneumogastric, and determines the phenomena of ictus, vertigo, and syncope. The author thinks that asphyxial troubles are the explanation of these cases in only a few instances. *Joa!.*

Armstrong. *Laryngeal Vertigo.* "Medical News," June 8, 1889.

AFTER relating the summaries of 20 cases that have already been published by various observers, Dr. Armstrong adds his own case of a vigorous man about forty-four years, who was garotted in 1875. In 1876 he was suddenly seized with a "catching in the throat," objects revolved around him and he became unconscious, and remained so for a minute, his face

was purple, and he felt nauseated on recovering his senses. Since then he has had several attacks of short sharp cough, followed by unconsciousness, lasting from a few seconds to a minute. He never had epileptiform symptoms, and his family history is very good. Nervous excitement and fatigue and heated rooms precipitated the attacks. Symptoms of asthma were apparent, but his larynx was usually merely congested about the arytenoids and false cords, with however, at intervals, acute laryngitis. Rima glottidis of normal size and normally innervated. Iodide of potassium, bromide of soda, and hydriodic acid have done great service.

The author inclines to the neurotic theory rather than that the short cough causes any such interference with oxidation of blood as to cause the unconsciousness, and prefers the term "laryngeal syncope" to laryngeal epilepsy. The treatment consists of counter-irritations locally and bromides or strychnia.

B. J. Baron.

Massei (Naples).—*Contribution to the Study of Primary Neuritis of the Trunk of the Recurrent.* Congrès de Laryngologie, Paris, 1889.

FROM the works of Charcot, Freidreich, Leyden, etc., the possibility of a neuritis of the recurrent must be accepted; its existence is founded on the presence of certain affections of mobility of the vocal cords, and on the absence of any cause capable of implicating the nervous centres, or compressing the nerve. Massei does not accept Semon's opinion, for it is a spasmodic contraction of the cord: moreover, experiment shows that according to the degree of stimulation of the recurrent there may result glottic spasm, spasmodic contraction or complete paralysis of the cord. Given therefore a material lesion of the motor-centres, or of the nerve trunk we may have the same successive phenomena of spasm, contraction or paralysis. As to differential diagnosis, the author says that in paralysis of the posterior crico-arytenoid muscle, during inspiration the cord recedes a little from the median line, while in contraction it always remains near the mid-line. The author related three observations in support of his views. Twice he found spasmodic contraction, once paralysis of the cord. In one case the neuritis was spontaneous, in another rheumatic, in the third infectious as a sequela of typhus. *Joal.*

Semon.—*Case of Bilateral Paralysis of the Abductors of the Vocal Cords.* Medical Society, November 25, 1889.

AN instance of bilateral paralysis of the glottis-openers in a married woman, aged forty-nine, who became aphonic eighteen months ago. After six months she gradually recovered, but as the voice returned she became subject to dyspnoea, exclusively affecting inspiration, sometimes amounting to menacing asphyxia. On examination, bilateral paralysis of the glottis-openers was found. Iodide of potassium failed to produce any improvement, and tracheotomy had to be performed; there was nothing to show what was the cause of the paralysis. Dr. Semon suggested that it was a case of complete (?) rheumatic bilateral paralysis of the recurrent laryngeal nerves, and that the adductors had recovered more quickly than the abductors, the latter being, during convalescence, thrown into a state of paralytic contracture, in which they had remained.

R. Norris Wolfenden.

Botey.—*Laryngeal Polypus of the Size of a Large Walnut.* “*Revista de Medicina Cirugía y Farmacia*,” May, 1889.

THE tumour was cut through with a galvano-cautery knife. One half was drawn out with Fauvel’s forceps and the other half with a galvano-cautery snare on the following day. The inequalities which remained upon the surface of the right vocal cord were subsequently rubbed off and cauterized. A complete cure was attained.

Ramon de la Sota.

Compaired.—*Clinical Remarks upon a Case of Laryngeal Papillary Polypus.* “*La Medicina Práctica*,” March 30, 1889.

A PAPILLOMA springing from the edge of the right vocal cord and of the volume of a pea was removed with Fauvel’s forceps after application of cocaine in fifteen sittings (*sic?*). Cauterizations were subsequently applied several times.

Ramon de la Sota.

Finley, F. G.—*Trichinæ of the Muscles of the Tongue and Larynx.* Transactions of the Montreal Medico-Chirurgical Society, April 19, 1889.

DR. FINLEY exhibited the larynx of a woman, aged forty-five years, in whose laryngeal muscles trichinæ were encysted. Trichinæ were also found in moderate numbers in the muscles of the tongue, but were not observed elsewhere in the body. They were distinctly visible to the naked eye as fine, yellowish particles. The woman had died of uræmia. Trichinosis had, of course, not been suspected.

George W. Major.

Demons.—*Total Extirpation of the Larynx.* Congrès de Chirurgie, Paris, October, 1889.

THE author showed a patient, now aged fifty-eight, upon whom about thirty months ago he had performed total extirpation of the larynx for epithelioma limited to the right vocal cord, and his patient is now in perfect health, has travelled from Bordeaux to Paris, visited the Exhibition, and all without the least fatigue. He wears no prothetic apparatus; however, with certain movements of the lips and tongue he can speak in a very intelligible manner, but with a low voice.

Joal.

Delavan.—*Modified Tracheotomy.* “*New York Medical Journal*,” April 20, 1889.

THE modification consists in making a round opening in the trachea by removing with a sharp tenotomy knife a portion of two or more tracheal rings, and inserting the cannula into this hole instead of pushing it through a slit in the trachea as usually done. The advantages are said to be less risk of making a false passage, prevention of bulging forward of the fibrous tissue, completing the tracheal tube posteriorly in forcing in the cannula, and great diminution in the soreness and irritation to the edges of the distended parts, also granulations are not so apt to form around the tube.

B. J. Baron.

Delavan, Bryson (New York).—*Modified Tracheotomy.* Congrès de Laryngologie, Paris, 1889.

THE proposed modification consists, instead of making a simple incision, in resecting a small circular fragment of the trachea, large enough to admit the cannula. By this method, the introduction of the cannula is

facilitated, there being no need of dilatation, suppression of the pain caused by the pressure of the cannula, and diminution of the chances of production of granulation tissue around the wound. *Joal.*

Riquer-y-Casadesus (Barcelona).—*Treatment of Cancer of the Larynx.* Congrès Inter. de Laryngol. Paris, 1889.

THE author is of opinion, contrary to that entertained by the majority of laryngologists, that cancer of the larynx is not suitable for operation after the period of its invasion, for the reason that the affection is then generalized throughout the whole system. *Joal.*

Charazac (Toulouse).—*The Comparative Value of Tracheotomy and Inter-crico-Thyroidal Laryngotomy.* Congrès. Inter. de Laryngol., Paris, September, 1889.

INTER-CRICO-THYROIDAL laryngotomy is more easy to perform and is less dangerous than tracheotomy in the adult. It ought, therefore, to have the preference in all cases in which the laryngeal affection is limited to the sub-glottic portion of the larynx, and does not threaten extension to the trachea. The result of his experience leads him to the following conclusions :—

1. The operation, as a general rule, should be preferred when the sub-glottic region is free.
2. In primary intrinsic cancer of the larynx, tracheotomy should be performed. And in extrinsic or secondary cancer, laryngotomy should be preferred.
3. In cicatricial contractions, dilatation is more easy after tracheotomy ; a cannula in the larynx impedes the operation. *Joal.*

Shalita, Semion G. (Kiev).—*Laryngo-fissure for Laryngeal Tumours.* "Vratch," 1889, No. 17, p. 389.

THE author details an interesting case of laryngeal tumour, in which thyrotomy was twice performed. The patient, a woman of forty-two, applied on account of failure of voice, dryness about the throat, dysphagia, dyspnoea, and dry cough. Laryngoscopical examination revealed a fleshy-coloured, slightly knobby, pear-shaped tumour of the size of a large walnut, filling up nearly the whole rima glottidis, and attached by means of a broad pedicle to the left ary-epiglottic fold and false vocal cord. The new growth remained extremely tender even after painting it with a 20 per cent. solution of cocaine. Having performed a preliminary tracheotomy, and plugged the wind-pipe above the tube with cotton wool globules soaked in a corrosive sublimate lotion, the author split up the thyroid cartilage along the median line, carrying the incision up to the "middle" of the hyo-thyroid membrane, and below dividing the cricoid cartilage as well, after which he dragged out the whole tumour through the wound and excised it (by means of scissors, together with subjacent tissues and a portion of the arytenoid cartilage. The exposed surface was treated with the galvano-cautery. A rather sharp hæmorrhage occurred in consequence of wounding a small-sized artery ; it was, however, speedily

arrested by an iodoform gauze plug. The wound was thoroughly disinfected, and then closed with catgut sutures (including the cartilage). Though the operation was conducted without any anæsthetics [Dr. Shalita does not give any explanation for his exceedingly cruel treatment—*Rep.*], the woman bore it quite well. The wound speedily healed *per primam*, and all the symptoms disappeared. Seven weeks later, however, there suddenly appeared cough, hoarseness, and almost complete aphonia, which proved to be caused by the development of another new growth of a whitish colour, and of the size of a bean, situated this time just under the anterior angle of the glottis, and growing out from the thyrotomy scar. On the 77th day after the first operation, another laryngo-fissure was performed, and the tumour easily removed by enucleation. Sixteen days later the patient was discharged, still wearing a tracheotomy tube, but with her wound soundly healed, her voice being good, swallowing painless, and the general state satisfactory. The first tumour, measuring $3\frac{1}{2}$ by $2\frac{1}{2}$ centimètres, proved to be a flat-celled epithelial cancer; the other one was of an indefinite type, consisting of fibrous stroma infiltrated with abundant small round (granulation) cells and traversed with numerous blood-vessels.

Analysing his case and reviewing the subject, Dr. Shalita comes to the following conclusions:—

1. Laryngo-fissure is absolutely indicated in all cases of malignant laryngeal tumours when the latter are circumscribed and are not accompanied by infiltration of adjacent tissues.

2. It is indicated further in all cases of suspicious tumours, as well as of benign ones, when the latter are multiple and have broad attachments.

3. It should be also resorted to in cases of laryngeal tumours in children under ten years of age.

4. In malignant cases, the operation should be performed as early as possible.

5. The new growth should be always removed, together with subjacent tissues.

6. When the operation is practised with due care (strictly median incision, careful adjustment of sutures, antiseptic precautions, etc.), the patient's voice, as a rule, remains in a satisfactory condition.

7. When performed under strict antiseptic precautions, laryngo-fissure is not dangerous to life.

Valerius Idelson.

Salzer (Vienna).—*The Casuistics of Laryngeal Operations.* “Langenbech's Archiv,” Band 39, Heft 2.

THE author has previously published an account of the laryngeal operations performed in Billroth's clinic during 1870-81, and now records the history of eleven cases operated upon since that time.

1. A patient, five years of age, having attacks of asphyxia, had been dyspnoëic for six months. Laryngoscopically, the larynx was seen to be quite full of *papillomata*. Laryngo-fissure was performed, and the papillomata removed, along with the right vocal cord (by Cooper's scissors). A cure was effected, the voice remaining whispering.

2. In a patient, fifty-five years of age, Prof. Schroetter diagnosed

carcinoma of the right half of the larynx. This was extirpated, and fourteen days later the tracheal cannula could be removed (December, 1885). In the year 1887 the patient was treated for laryngeal stenosis, by bougies, in the clinic of Prof. Lomikowsky, in Charlôw, and cured in a short time. In November, 1888, the patient had still no recurrence of the disease, and possessed a strong, though hoarse, voice.

3. In a patient, aged fifty-one, in whom Prof. Schroetter had diagnosed *carcinoma of the right half of the larynx*, partial extirpation was performed by Billroth. Death occurred twelve hours after.

4. A patient, aged forty-four, had a tumour of the right ventricular band, which was diagnosed by Bresgen and Schroetter to be *carcinomatous*. Cure resulted, but two months after the patient died from cardiac paralysis.

5. A patient, forty-eight years old, had been operated upon four years before for papillomata. Two years before Billroth operated, Stoerk had removed a bean-like tumour of the right vocal cord. The wound bled profusely. Billroth performed partial extirpation. Death occurred two months after from a pulmonary affection.

6. A patient, aged fifty, had a tumour of the right vocal cord (*carcinoma*) for which extirpation of the right half of the larynx was performed. So much mucous membrane was preserved that a new vocal cord was formed. Cure resulted, and the patient speaks with a loud, strong voice. An illustration shows the newly-formed vocal cord to be similar in appearance to the old one.

7. A patient, aged fifty-three, had *carcinoma of the right vocal cord*. The cord and the tumour were removed, and a cure resulted. Some months later a recurrence occurred.

8. A patient, aged forty-eight, had *carcinoma of the œsophagus and larynx*, with one enlarged and infected gland in the neck. The larynx and anterior portion of the upper part of the œsophagus were removed together with some carcinomatous glands. Though recurrence has taken place the patient is still living.

9. A patient, aged fifty-six, had *carcinoma of the right side of the larynx*. Extirpation of the thyroid cartilage and the tumour was performed. Death resulted.

10. A patient, aged sixty-five, had noticed for six months a hard tumour on the external parts of the larynx. Laryngoscopically, swelling and infiltration of the right arytenoid cartilage were found. The patient was so dyspœic that, on his entrance into the hospital, laryngotomy through the conoid ligament had to be performed. Some days later the larynx was resected, and the glandular carcinoma extirpated. Cure resulted, but some months later recurrence took place.

11. A patient, fifty-nine years of age, had *carcinoma of the right half of the larynx*. Extirpation was performed, and cure obtained. The patient speaks with a loud, hoarse voice.

The author then gives a table of all the cases operated upon by Billroth in which resection or extirpation of the larynx has been performed. Typical extirpation of the whole larynx has not been performed during the last nine years, since it has always been possible to preserve

some portion of the healthy parts of the larynx. During the last four and a half years have been operated upon for carcinoma :—

1. 2 laryngo-fissures—1 death, 1 cure.

2. 8 partial extirpations—2 deaths, 4 cures, 2 recurrences still living.

Statistics of all the cases show the following results :—

10 laryngo-fissures—3 deaths, post op., 3 twice operated upon, 1 recurrence, 2 living without recurrence, 1 doubtful.

8 resections—5 deaths, 1 recurrence still living, 2 cures.

3 complicated partial resections—In all recurrence took place.

4 total extirpations—In all of which death occurred.

As to the value of the operation, Billroth remarks that extirpation of the larynx is not yet so well understood that it is possible from statistics to draw any very exact results as to the mortality of the operation, but it may be conceded that during the last few years the results have been somewhat better than the period following its first performance. Very exact statistics concerning individual features of the cases and operations would, however, in future, be very instructive. *Michael.*

Juffinger (Vienna).—*Complete Cicatricial Closure of the Larynx Cured by Extra-Laryngeal Treatment.* "Wien. Klin. Wochenschr.," 1889, No. 44.

A PATIENT, twenty-seven years of age, had been hoarse for two years. Some time after he became dyspnoëic, and tracheotomy had to be performed. Some time after this the patient got small-pox, after which all communication between the mouth and the trachea was closed. Laryngo-fissure was performed, but with imperfect result ; the patient was then sent to Schroetter, who diagnosed complete stenosis of the larynx. A Middeldorpf-harpoon was introduced, and the cicatrix perforated on the harpoon, a silk feather was fixed and left in the new opening. Dilating a little each day, it became, later on, possible to introduce No. 1 tin bougie, and eventually up to No. 22. Some months later, hard rubber bougies were used, and the patient can now apply them himself. He sleeps with a closed cannula, and it is hoped that the latter can soon be removed. *Michael.*

Botey.—*Four Cases of Unexpected and Sudden Deaths from Severe Laryngeal Affections.* "Revista de Medicina Cirugía Farmacia," June, 1889.

THE first case to which the author refers was probably one of aneurism of the aorta, compressing the recurrent nerve and causing paralysis of the left vocal cord. The patient died suddenly from rupture of the aneurism, while Botey was preparing to make a laryngoscopic examination. The second case was that of a patient with intra-laryngeal cancer who died four hours after making a trial at avulsion *per vias naturales* of a growth as large as a small hazel nut, situated at the level of the glottis, and which greatly embarrassed the respiration. *Ramon de la Sota.*

Downie, J. W.—*Remarks on Intra-Laryngeal Injections in the Treatment of Pulmonary Affections.* "Glasgow Med. Journ.," December, 1889.

THE author has treated over forty cases of patients suffering from tubercular laryngitis with slight pulmonary implication. Early phthisis,

pulmonalis, pulmonary cavity, bronchiectasis, following long standing bronchitis, and gangrene of the lung. The solutions employed were menthol in olive oil 12 per cent., with the addition of 2 per cent. of pure creosote where fœtor of the breath existed. Pure carbolic acid, creosote and eucalyptus, each dissolved in olive oil were also employed. Eucalyptus, however, produced much loathing and was discarded. The injections were made by means of an ordinary hypodermic syringe, to which is fitted laryngeal tubes, made in vulcanite, and of three sizes, differing in the size and form of the curve. They are simple tubes of equal calibre throughout, and not ending in the form of a spray. The injections were made by means of a laryngeal mirror. The point of the syringe should pass below the level of the vocal cords before the fluid is injected; this is then done directly through the larynx into the trachea, and as much as two drachms in some cases can be injected without the slightest inconvenience, the syringe being removed from the tube when necessary and refilled. As to the results, the cough is greatly relieved, and sleep obtained. Expectoration is reduced and rendered less offensive. There was marked increase in body weight in most of the patients treated, and the temperature is reduced to the normal. No complications arose which could in any way be traced to the injections. When rectified spirits were employed as the medium for solution glottic spasm resulted, which in some cases was quite alarming. By using menthol in this way, we have an antiseptic brought as closely into contact with the affected surface as it is possible to do, much more so than can be accomplished with inhalers. With the menthol within the trachea all the inspired air passing over it becomes laden with the antiseptic, and is carried to the final ramifications of the bronchi. *R. Norris Wolfenden.*

Grün, E. F.—*Death through Impaction of a Pea in the Bronchus.* "Lancet," December 14, 1889.

A CHILD, aged two years, had been playing with peas in the month, and one was missed. It was not certain whether it was swallowed or not. Violent coughing ensued, but air entered both lungs freely and there was no dyspnoea. The child continued in fair health for four weeks and then died suddenly. At the autopsy, the pea, soft and swollen, was found at the bifurcation of the trachea. It had evidently been impacted at the commencement of the left bronchus. The left lung was solid and fibrous, emphysema existed at the apex, and pleural adhesions at the base. The right lung was perfectly healthy. The author thinks that death was caused by the dislodgment of the pea, and its occluding the right bronchus, producing instant suffocation. *R. Norris Wolfenden.*

Moure.—*Contribution to the Study of Foreign Bodies in the Air Passages.* Soc. de Méd. de Bordeaux, May, 1889.

SIX cases are related of foreign bodies, amongst which spontaneous expulsion *per vias naturales* occurred once, three times extraction was accomplished, and twice death occurred without surgical intervention. Moure altogether condemns digital exploration, since it may have serious consequences, by causing a body placed on the epiglottis or glottic

vestibule, to fall into the larynx. The same applies to attempts to introduce forceps, either alone, or guided by the left hand. When this is done it should always be with the laryngeal mirror.

Moire does not advise the production of local anæsthesia before proceeding to extraction, as reflexes are thus abolished, and foreign bodies may enter the trachea. Cocainising the pharynx is, however, allowable, permitting thus the introduction of instruments. *Joal.*

Massei (Naples).—*Considerations on Certain Cases of Foreign Bodies in the Air Passages.* Congrès Inter. de Laryngol., Paris, September, 1889.

THE author related three cases, in which (1) the patients had not perceived the accident, (2) the penetration of the foreign body had been accomplished without any symptoms, and these only occurred at the period of inflammatory reaction. In the first case, a fish-bone was seen by the laryngoscope at the level of the third tracheal ring. The second case, was that of a lady tracheotomised for oedema of the glottis, and who expelled a chicken bone. The third patient, had infiltration and immobility of the cords, and was tracheotomised without success. At the autopsy, there was found below the cords, a large piece of beef bone. Massei concluded, that in cases of infiltration of the cords of doubtful origin, it is necessary to bear in mind the possible presence of a foreign body. *Joal.*

Hovell.—*Two Cases of Foreign Bodies in the Air-passages.* Hunterian Society, October 23, 1889.

CASE 1 was that of a woman aged thirty-three. A piece of bone from a sheep's head, which she had been eating, three-quarters of an inch long, was lodged in the trachea a quarter of an inch below the vocal cords for two months. It was successfully removed through the mouth by means of forceps after the larynx had been sprayed with cocaine. Case 2 was that of a lady with a quarter of a peeled walnut lodged in the right bronchus. It was coughed up at the end of five days.

R. Norris Wolfenden.

Linares.—*Foreign Body in the Trachea.* "Revista de Medicina y Cirugia Prácticas," October 7, 1889.

WHILE sleeping, a gentleman swallowed a piece of caoutchouc with two teeth attached. He woke with dyspnœa, aphonia, and pain in the pharynx. Two days afterwards tracheotomy was performed, and trials were made to extract the foreign body *per vias naturales*, but without effect. Laryngotomy was then performed and the caoutchouc plate was drawn out, the patient being cured. *Ramon de la Sota.*

THYROID, NECK, &c.

Mann, J. Dixon.—*Adenoma of the Thyroid Gland in a Leopard.* "Brit. Med. Journal," November 23, 1889.

THE author showed sections at the Manchester Pathological Society, taken from the thyroid gland of a young adult leopard. The gland contained numerous small nodules of tumour formation, the largest nodule being three-eighths of an inch in diameter. Each nodule was round, white or creamy in colour, sharply circumscribed, and distinctly limited by a thin fibrous capsule. The nodules consisted of epithelial cells of cuboidal form arranged in cords separated by fibrous tissue, continuous with the capsule. In many places, a distinct lumen was present, and the vesicular nature of the normal gland was assumed. All the other body organs were normal.

R. Norris Wolfenden.

Jacobson.—*Enlargement of Thyroid.* "British Medical Journal," June 8, 1889.

THE author showed a mother, aged thirty-seven, and five children, all the subjects of enlarged thyroids. In the case of the mother, Mr. Jacobson had removed the isthmus, all the left and about a third of the right lobe, fixing the remainder of this away from the trachea under the sterno-mastoid with buried sutures. Entire relief to the dyspnoea had followed. The ages of the five children ran from one to eleven years. The enlargement was most marked in the only girl, the second child, aged ten. The family had lived at Beckenham only.

Dr. Stephen Mackenzie thought the series unique. He was also of opinion that it was not uncommon to find such cases in patients over thirty. Parenchymatous enlargement of the thyroid he had seen successfully treated by injections of acetic acid and other fluids, and in one case by successive blisters.

R. Norris Wolfenden.

Savile.—*Case of Myxoedema in a Man.* Medical Society, November 25, 1889.

THE author showed a man, aged forty-five, whose symptoms commenced eight years before with weakness, puffiness of the skin—first in the forehead and eyes, and then in the feet—together with unusual sensitiveness to cold. No family history of importance. He had been a great drinker in years past. When admitted into the infirmary on November 1, 1888, his condition was very characteristic. The thyroid could not be felt. His temperature was usually subnormal. No impairment of sensation, but the reflexes were dulled, and there was general loss of muscular power. Memory was also impaired, but there were no delusions. Special senses normal, except the hearing, which had been impaired since twelve years. No albumen in urine.

R. Norris Wolfenden.

Poncet.—*Large Circum-Thyroidean Incisions in Cancer of the Thyroid Gland.* Congrès de Chirurgie, Paris, 1889.

IT is well known how painful are the sufferings caused by cancer of the

thyroid gland. In a recent work of Orsel in the "Province Médicale" this author who collected eighteen personal observations on cancer of this gland concluded from an examination of the facts that complete extirpation of these tumours is really impossible. Poncet, however, does not think that there is any need to completely abandon these patients. He proposes a new operation, consisting in large incisions, so as to permit the liberation of the neoplasm. This operation, to which he gives the name of "thyroidean circumotomy," comprises the following points :—

1. A crucial incision over the tumour, in order to get ready access to it.
2. Separation and incision of the hyoid and thyroid muscles which surround it.
3. Liberation by raising the deeper portions of the tumour with the help of the index finger, in order as much as possible to free the deeper portions.
4. Suture and drainage. *Joal.*

Bontaresco.—*Bilateral Retro-sternal Asphyxiative Cystic Goitre.* Congrès de Chirurgie, Paris, October, 1889.

A WOMAN, aged forty-six, had two enormous tumours in the neck, the one situated laterally in the supra-clavicular region, the other approaching the median line and pressing against the trachea and displacing it, and extending downwards beneath the sternum. The contents of these cystic tumours resembled a chocolate fluid. Owing to the pressure on the trachea great dyspnoea was caused. The author having emptied the tumours with an aspirator, enucleated the lateral tumour first, and removed the second tumour seven months afterwards by the same method. During the operation very considerable and alarming hæmorrhage occurred; the portion of the goitre which descended into the thorax could not be removed. A cure, however, was completed within two months. *Joal.*

Gallardo.—*Abscess in the Left Lateral Region of the Neck, caused by a Foreign Body in the Œsophagus.* "El Bisturi," June, 1889.

A MAN accidentally swallowed a large codfish-bone. This was arrested at the level of the sternal fourchette, causing acute pain, which was increased on pressure and on efforts of deglutition. Subsequently severe inflammation occurred, ending in suppuration at the left side of the neck near the sternal fourchette. Deglutition was absolutely impossible. The author opened the tumour, allowing a large quantity of fetid pus to escape along with the fish-bone, which had perforated the œsophagus. *Ramon de la Sota.*

Shepherd, F. J.—*Abnormal Subclavian Artery, etc.* Transactions of the Montreal Medico-Chirurgical Society, May 17, 1889.

DR. SHEPHERD exhibited a specimen, showing the right subclavian artery arising from the descending arch and passing upwards between the trachea and œsophagus to reach its normal position in the neck. The right recurrent laryngeal nerve did not hook around the right subclavian,

but found a loop in close relation with the right vertebral, which represented, no doubt, the shortened fourth arch. The sympathetic of the right side was somewhat pulled down by the right subclavian. The report in detail is worth perusal.

George W. Major.

Schiffers (Liege).—*Branchial Fistulas.* Congrès Inter. de Laryngol., Paris, September, 1889.

THE author related the case of a man, thirty years old, who had, since infancy, had a fistula, the orifice of which was situated on the right side of the neck, within the sterno-mastoid muscle. For fifteen years purulent liquid had flowed from the orifice. Removal of the cyst cured the condition.

Joul.

Eve and Bidwell.—*Sub-hyoid Dermoid Cyst.* "Lancet," November 23, 1889.

THE patient was a girl, aged twelve, brought to the Evelina Hospital for a fluctuating swelling in the anterior part of the neck, in the middle line, which had been noticed for five or six years, having latterly increased in size. The tumour was not adherent to the skin, and projected between the hyoid and thyroid cartilages in the mid-line. On opening the cyst it was found to pass backwards, and below the hyoid bone. It contained oily matter, and crystals of fatty acids, the lining membrane being smooth, and resembling mucous membrane. As much as possible was removed, the wound healing in a fortnight without recurrence. The cyst probably originated by cutting off a small fragment of the mucous membrane of the respiratory passages in the closure of the branchial arches along the median line.

R. Norris Wolfenden.

Moura-Bourouilhou (Paris).—*The Voice and the Registers.* Congrès de Laryngologie, Paris, 1889.

THE author having made a critical study of the numerous significations given by authors to the words "voice and registers," gives the following definitions :—

The voice is the sum total of the sounds, which, generated in the larynx, are transformed by the will, by means of the mouth, and the lips into words and musical notes.

The register is a series of sounds having a uniform character of emission and sonority.

Joul.

Chervin (Paris).—*Classification of Affections of the Speech.* Congrès de Laryngologie, Paris, September, 1889.

THE act of speech comprises :—

- (1) The elaboration of ideas and words.
- (2) The transmission of ideas to the articulating mechanism.
- (3) The putting into action of these organs.

To each of these acts a group of troubles corresponds, which may be thus classed :—

1. Affections of thought
 - (a) permanent, caused by mental diseases ;
 - (b) temporary, caused by fright, anger, or emotion.

2. Disorders of transmission—
 - (a) with organic lesion, comprising all forms of aphonia ;
 - (b) without organic lesion comprising stammering and stuttering.
3. Disorders in the articulation of words—
 - (a) of organic origin, caused by cleft palate, hare lip ;
 - (b) of functional origin, such as stammering, and its innumerable varieties. *Joal.*

REVIEW.

Chronic Bronchitis and its Treatment : a Clinical Study.—By WILLIAM MURRELL, M.D., F.R.C.P. H. K. Lewis, London, 1889, pp. 176.

It is not quite easy to assign a place for this book in medical literature. It certainly deals with an important subject, and contains much that is worth reading. But we cannot determine whether it is most written for the public at large, or the profession in particular. Both classes may derive benefit, however, from perusing it, the former amusement, the latter instruction. One would scarcely imagine that there was such an amount of fun to be derived from the treatment of bronchitis. The author is evidently something of a humourist, if we may judge from the notes of his patients' cases, as entered into his case book and quoted here. Thus, referring to the application of a spray of *jaborandi* for winter cough, the author speaks of the disadvantages it possesses of staining the skin, and relates how "an old gentleman, who came with a long snow-white beard, went away with one of a bright green colour. He did not notice it, but his friends did!" Again, he remarks that "a mixture of two parts of syrup of tar and one part of syrup of Virginia prune is an ideal mixture. In its presence *maraschino*, *curaçoa*, and even green chartreuse naturally take a back seat." The chronic bronchitic "yearns for it." Russian influenza will give place to an epidemic of bronchitis if this fact becomes known! A well-known singer even thought that terebene improved the character of his compositions, "but on this point I refrain from offering an opinion," modestly says the author. The stories of the Member of Parliament, who says "the smell of the sandalwood is strangely familiar to him—" "can't account for it," and of Captain W., commander of an Australian liner, "who has a collection of prescriptions of his own, who always tries them on other people first, and intends to take a chloride of ammonium inhaler on his next voyage," with "a supply of pinol, pure terebene, and cubebs : will try it on the passengers," are good. The latter, however, adds a new terror to sea voyaging, and it is not surprising that Dr. Murrell adds to his notes "He is not heard of again." Presumably his experiments met with Nemesis. Members of the House of Commons will learn with regret that, "Thomas S., aged forty-two, cook to the House of Commons," attributes his winter cough "partly to having to cater for members of such various shades of political opinion," and that "he drinks beer, the wines of the House not being quite up to his mark." Chloride of ammonium and oil of cubebs, however, set him up in spite of these depressing circumstances. It is to be hoped that "Eliza W., aged thirty-two," has followed Dr. Murrell's advice, and has abandoned "the beer-drinking orgies in favour of

"a lighter and more frivolous form of amusement," and that virtue has been rewarded in the disappearance of her winter cough. Sorrow must be felt for Mary H., aged twenty-one, who had never been weighed through "not being able to afford expensive luxuries," and who wanted most "a good meal, but that was not in the hospital pharmacopia." "M. B., a general, retired, who has consulted all the specialists, and has had his ears examined with many strange instruments," and who says, "that the advantage of consulting many doctors is that no two of them agree, and you are not alarmed by what they tell you," and was not much in favour of inhalers, as he "tried one once, but it blew up," is of the distinctly irritating order of patient. It is satisfactory to learn, however, that he was "introduced to the Vereker Inhaler, and takes to it kindly."

Dr. Murrell is, however, gallant to the fair sex, as is evident from the following: "Miss A. W., singer, contralto, often loses her voice, especially when she has an engagement . . . something wrong with an upper C" (delightful uncertainty about the "something"!); "uses the chloride of ammonium inhaler, and takes phytolacea assiduously for a couple of days before singing. Maintains that it does her good. Impossible to contradict a lady, so treatment continued." This is quite too skittish! If all our medical books were written in this playful vein, how delightful would the armchair and evening cigar be over a "System of Medicine," or "Treatise on Surgery"! We shall only want the syrup of tar and Virginian prunes to complete our postprandial happiness!

However, turning to such portions of the work as are evidently intended to be taken seriously, we find that the author deals in successive chapters with "The Ipecacuanha and other Sprays," "Tar and its allies," "Pure Terebene and its allies," "Chicken and Cubebs," "Chloride of Ammonium Inhalations," and "Fuming Inhalations." Vinum ipecacuanhae seems to have been used in a large number of cases of bronchitis and winter cough, in a spray form with Siegle's apparatus, with very good effect. A mixture of 1 of the vinum ipecac. to 2 of water was found to be the best. One inhalation daily will effect a cure, but two or three daily are even better. In most cases of winter cough from four to eighteen inhalations are required. The wine may be used even pure, but when there is a tendency to asthma the spray must always be used with caution and the ipecacuanha wine be freely diluted, or a severe paroxysm of dyspnoea may be excited. Ipecacuanha in small doses in spray form exerts little or no depressing effect, but produces abundant secretion from the bronchial mucous membrane. Its influence in arresting bleeding makes a special indication for its use in hemoptysis.

Tartar emetic (1 grain to 1 ounce of water), or equal parts of antimonial wine and water, or undiluted antimonial wine, with a Richardson or Siegle spray, have given good results when expectoration has been thick, stringy, and expelled with difficulty, but has less effect on the dyspnoea than ipecacuanha wine. A spray of tincture of lobelia has been employed in a few obstinate cases in which shortness of breath has been a prominent symptom, and in bronchial asthma. In the latter class of complaint lobelia is much preferable to ipecacuanha. Tincture of jaborandi $\frac{3ij.}{\text{}}\text{}$ at each inhalation facilitates expectoration, but it does not equal ipecacuanha, and unpleasant effects followed in the case of the gentleman with the snow white beard. A 2 per cent. aqueous solution of iodide of potassium is a satisfactory spray for bronchial catarrh.

As to tar, the syrup of tar of the United States Pharmacopoeia has been found by the author to be the most useful preparation. Several ways of administering tar are here given. The author finds that it is a good remedy for winter cough,

but slower in action than the ipecacuanha spray. If cough predominates over dyspnoea, tar is indicated. Creosote is indicated where vomiting is complained of in addition to the other symptoms. Benzol is also an excellent remedy for chronic bronchitis. Terebene on sugar (ten drops three times a day, or as an inhalation, one to two ounces used every week) is useful in winter cough, especially when associated with flatulence and acidity. A spray of pure terebene (3 parts) and pinol (1 part) gives extremely good results. A chapter follows upon the use of eukin, and another upon chloride of ammonium inhalations. The author has been able to obtain more wonderful results from the latter than we have ever succeeded in accomplishing, and they are probably quite as much due to the cubebs, pinol, terebene, etc., with which the inhaler is simultaneously charged. Such, for instance, was the case in the patient with nasal congestion, "and who had been to a special hospital for diseases of the throat and underwent "several operations, a portion of the mucous membrane being removed it is said, (*sic?*) (probably post-nasal adenoids), but there was no improvement. She snores at night and "always sleeps with her mouth wide open." Chloride of ammonium, with pinol and pure terebene, did what the 'special hospital' apparently failed to do, and "the improvement was marked." A short chapter on fuming inhalations closes the book in which a well-known preparation is twice referred to as 'Humrod's powder.' The author favours 'Grindelia Robusta' for asthma. Some errors, such as 'hyperæmea,' 'Humrod,' 'resistence,' show evidence of careless revision, and on p. 41 is a statement that "the left ventricular *bands* were greatly swollen" (*sic*).

In conclusion, it may be said that a great many of the methods discussed here with an air of novelty have been the property of specialists for years, and the same may be said of most of the drugs referred to. While, therefore, there is little that is original in the work, the general practitioner will find much that is serviceable and profitable to him, in the indications for and methods of administration of these preparations for the relief of bronchial conditions. The book is well printed, handy in form, not too long, and is sufficiently entertaining to be eminently readable.

NOTE.

The Academy of Medicine, Paris.

AMONGST the Prizes which will be distributed during 1890-91-92, are the following :—

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Prix Alvarenga : 800 francs.

For the best memoir or unpublished work (the subject being the choice of the author) upon any branch of medicine.

Prix Amussat : 800 francs.

For the best work or research based upon anatomy and experiment, which shall have realised or prepared the most important progress in surgical therapeutics.

Prix Meynot : 2600 francs.

To the author of the best work upon diseases of the ears.

Prix Saint-Leger : 1500 francs.

For experimental research, which will prove the thyroid tumour to be caused by administration to any animals of any substances extracted from the water or earth of endemic goitre regions. The prize will only be awarded when the experiments will have been successfully repeated by the Academic Commission.

Prix Saint-Paul : 25,000 francs.

To be awarded to any person without distinction of nationality or profession who will first discover any remedy recognised by the Academy, as efficacious and sovereign against diphtheria.

Until the discovery of this remedy, the interest of this sum will be distributed, every two years, in prizes for the encouragement of those whose work upon diphtheria is thought by the Academy to be worthy of recompense.

PRIZES FOR 1891.

Prix Baudet : 1000.

The surgical treatment of goitre, and its immediate and distant sequelæ.

PRIZES FOR 1892.

Prix Baudet : 1000 francs.

Leucoplasia buccalis.

Prix Portal : 600 francs.

The pathological anatomy of the thyroid gland.

Works presented by foreigners are admissible for these prizes. They must be written in French or Latin, and accompanied with the names and addresses of the authors enclosed in a sealed envelope before the end of February in each year. Candidates not observing these rules will be disqualified, except in the *Prix Alvarenga*, *Amussat*, *Meynot*, *Saint-Paul*, in which cases printed works may be submitted. All works and instruments submitted for competition remain the property of the Academy. The prizes give the right to the title of "Laureate of the Academy of Medicine."

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THE THROAT AND VOICE.

LONDON.]

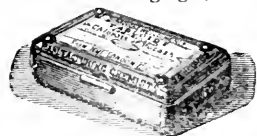
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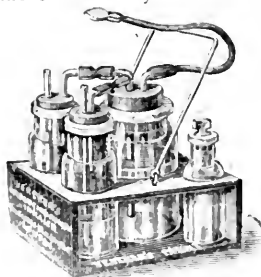
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BREATHING DURING SINGING AND SPEAKING.

A NOTE.

By MAYO COLLIER, M.S., F.R.C.S., London.

LITTLE that is worth reading is to be found in text-books of physiology on the subject of the proper method of taking the breath during speaking and singing.

The subject is either treated inadequately or incorrectly. For information we must turn to the works of the specialist, or to those to whom the training of the voice falls.

Authorities are divided into two opposing bands, holding diametrically opposite views. These may, for our purposes, be designated the old and new schools. The old school as represented by the old Italian Masters, and the new by the Paris Conservatoire.

To some it may be necessary to point out that in ordinary quiet respiration the posterior and lateral portions of the diaphragm descend, and the ribs ascend and expand. That in forced inspiration the diaphragm may be made to ascend or descend to its fullest extent.

The difference of opinion between the old and new schools depends upon this forced ascent or descent of the diaphragm. Inspiration associated with ascent of the diaphragm is inspiration with hollow or unprotruded abdomen, and the method adopted and advocated by the old Italian Masters. Inspiration associated, on the contrary, by forced descent of the diaphragm is inspiration with protruded abdomen; the form advocated by more recent but, I venture to state, less enlightened observers.

The crown of the diaphragm being forced up to its fullest extent and there retained, the muscular portion is nearly vertical, and in this position acts as a powerful agent in elevating and expanding the lower ribs, and so increasing the area of the floor of the chest cavity. The result of a forced lowering of the crown of the diaphragm is a nearly horizontal position of the muscular portion, with a further effect of, on contraction, a

depression and drawing in of the lower ribs, and consequent diminution of the area of the floor of the chest cavity. This is well illustrated by cases of chronic emphysema.

Now, in order to judge of the relative merits of these two forms of inspiration, we have only to regard the chest cavity as a cone, and apply the ordinary mathematical formula for such: $V = \frac{1}{3} \pi r^2 h$. We can now see at a glance that the volume of the chest can only be materially increased by increasing the area of the base, or, in other words, by elevating the crown of the diaphragm, and thereby elevating and expanding the lower ribs. r representing the radius of the base of the cone, however small the increase of r , r^2 is squared; whilst on the other hand h representing the height of the cone, whatever the increase of h , it is always to be divided by 3. We know, however, from anatomical reasons, h can never exceed an inch to an inch and a half.

From this then it would appear that the proper method of inflating the chest for singing and speaking purposes is to draw in the stomach and elevate the ribs, and that after all the old Italian School was right.

EPITHELIOMA OF THE THYROID GLAND AND TRACHEA.

A CLINICAL NOTE.

By R. NORRIS WOLFENDEN, M.D. Cantab.,
Physician to the Throat Hospital, Golden Square.

THIS is one of the least common of malignant growths in the thyroid gland, and the record of the case becomes on that account the more interesting.

G. B., a strongly-built, broad-shouldered man, aged fifty-five, applied to me on November 15th, 1889, for a swelling in the neck and difficulty in breathing. By trade he was a mason, and had, according to his own account, always enjoyed good health. The following notes were taken at the time of his admission as an in-patient into the hospital on November 19.

Until six months previously the patient had always enjoyed good health, but for occasional attacks of what he called "asthma." His father died of pneumonia, and his mother and a sister died from "coughs." About Easter, 1889, he began to notice slight pain in swallowing, which has ever since gradually increased. During the last four months he has lost about two stones in weight. Seven weeks before seeking advice he grew worse, and in addition to the dysphagia, loss of flesh became more pronounced, breathing more difficult, and a hard, tender little swelling about the size of a pea, appeared in the right side of the neck, being freely movable under the finger. This has been growing larger ever since, and some swelling of the left side has been noticed during the last few days by him. He has also had occasional sharp pains shooting up behind the right ear to the temporal and frontal regions.

Present condition: The patient is fairly well nourished, and does not

appear very cachectic. He has considerable difficulty in breathing, which is noisy, and accompanied with stridor. He has to stop very frequently in speaking for want of breath. He states that the pain upon swallowing has prevented him from taking any solid food for five weeks.

The swelling of the thyroid gland is very noticeable on the right side, forming a tumour pressing against the trachea, and of the dimensions of a good-sized orange. Its consistence is densely hard, and its surface is not nodular. A similar hardness and increase of size is felt over the isthmus of the gland. The left lobe, though apparently a little enlarged, is quite soft. The tumour moves on deglutition, and the skin is not adherent, and moves freely over its surface.

An œsophageal bougie, No. 8, passed readily down the œsophagus and neither with the bougie nor by auscultation of the back was any stricture of the œsophagus determined. He can swallow liquids with ease, and thin bread and butter, and it appears to be only pain which interferes with deglutition.

With the laryngoscope a large red swelling was observed under the right vocal cord, located in and projecting into the trachea. It had an uneven surface; the vocal cords moved with freedom, and were apparently normal; the left ventricular band was slightly swollen and of a bluish-red colour, slightly overlapping the corresponding cord. It was evident that a considerable degree of tracheal stenosis existed, and it was thought that a deflection of the trachea existed, but this could not be determined with accuracy. (The autopsy showed how the growth in the trachea hid it from view.) No enlarged glands were found anywhere. Owing to the urgency of the dyspnœa, which gave rise to sudden spasmodic asphyxiative attacks, I decided to admit him into the Hospital, leaving directions with the resident-medical officer, Mr. Brackenbury, to perform tracheotomy should the occasion arise.

During the night of Nov. 19 the patient had two or three bad paroxysms of dyspnœa and very little sleep. During the day of Nov. 20, he had comparative freedom from dyspnœa and swallowed his food fairly well, but fearing that he might be carried off by a paroxysm during the coming night, we thought it wiser that tracheotomy should be attempted. The patient was accordingly put upon the operating table and anæsthetised with chloroform, my colleague, Dr. J. W. Bond, kindly undertaking the operation. On cutting into the isthmus of the thyroid, which was enlarged, high tracheotomy having been determined upon, it was evident that the mass was carcinomatous. It was very hard and the section of the deeper portion gave exit to some thin pus. The trachea being pressed over to the left side of the neck was not easy to find. However it was found and the incision was made into it, but was not followed by any relief, though there was no doubt that the trachea had been opened. While drawing the right lobe over to the side so as to get more room for inspection, the patient's breathing suddenly ceased. All the usual methods of restoration were employed, but were unavailing. Sub-hyoid pharyngotomy was at once done, and a long spiral tube introduced, but without any result. On passing the fingers into the trachea it was evident why relief had not followed the incision into this tube. The trachea was

found to be deflected considerably with an angular curve towards the left side, below the mass of growth, and no ordinary tube could have passed this obstruction. The operation in such a case as this was a very difficult one.

An autopsy was made 36 hours after death. It was unfortunate that we succeeded only in obtaining permission to examine the throat. The results of this partial examination were as follows :—

The thyroid gland was greatly enlarged in its right lobe and also the isthmus, and these were of pale, greyish-yellow appearance, and very hard and bloodless ; the left lobe was apparently of normal size and colour.

The right lobe was not found to press at all against the œsophagus, the latter tube being quite free from disease, and not constricted anywhere, at least as far down as it could be examined. The size of this enlarged right lobe was about three inches from above, downwards, and about half that diameter, and it formed a smooth-surfaced, nearly globular, tumour.

The capsule was everywhere densely adherent, but not nodulated. The lower portion of this lobe was in the interior and towards the middle densely hard and calcareous, and no knife could go through it. Right at the posterior portion where it lay near the cricoid cartilage, a broken-down cavity admitted the tip of the first finger. This was the source of the pus which extruded during the operation, and which lay between the deeper portion of the right lobe and trachea. This cavity appeared only to communicate with the cellular tissue of that side of the neck, and did not open into the trachea by any communication which could be discovered. The lower portion of the right lobe was found to exercise considerable pressure upon the trachea, causing a flexure at the fourth and fifth ring, and pressing this tube over to the left rather sharply. A little below this point, and surrounding the trachea transversely, and externally, was a chain of small cancerous glands, the largest being about as big as a pea.

The isthmus was entirely converted into a cancerous mass, no trace of normal structure being visible.

The trachea on being exposed exhibited a mass of cancerous growth commencing at the lower level of the cricoid in front, and extending down on the right lateral wall to the third and fourth tracheal ring, and thus being above the tracheal flexure.

The specimen was removed entire, a cast was taken of it, and it was afterwards preserved in the Museum.

A portion of the right lobe was cut out, and a similar piece of the tracheal growth, and reserved for microscopical examination. This proved it to be a *squamous-celled epithelioma*, great epithelial proliferation being found everywhere in strings with a large amount of fibro-cellular tissue. Numerous epithelioma "cell nests" were discovered. The portion of the tracheal growth examined was composed largely of inflammatory tissue, but epithelial tissue of the same character as the gland tumour was present, with epitheliomatous cell nests. I defer for the present further descriptions of this growth, illustrations of which I would have appended to these notes had they been ready.

Very few cases of epithelioma of the thyroid gland have been put on record, the only ones with which I am familiar being cases of cylindrical epithelioma recorded by W. Müller, Lücke, Cornil, Kaufmann, and Wölfler, and of squamous-celled epithelioma by Förster, Eppinger, Lücke, Kaufmann, and Braun. In Eppinger and Braun's cases growths in the trachea existed.

In this case no difficulty was met with in arriving at an early diagnosis, the only question being whether the tracheal tumour or the thyroid growth was the primary event. Tracheal growths coincident with thyroid malignant neoplasms are, however, very frequent, and there can be little doubt from the history of the case, and especially the early dysphagia, that the first deposit was in the thyroid gland, and that the tracheal neoplasm was secondary.

With a growth in such an advanced condition as this was when the patient first came under observation, it is usual to get not only dysphagia and dyspnœa, but pressure upon the vessels and nerves of the neck, vocal cord paralysis, fixability of the tumour by adhesions in various directions, and adhesion of the skin to the tumour, so that it cannot be moved over it. The early sign of dysphagia, which is a most valuable one in the diagnosis of these tumours, was present from the first, and this may very probably have been due to some pressure upon the œsophagus by the portion of the right lobe, which afterwards broke down into an abscess, and this would account for the fact of no pressure upon the œsophagus being found *post mortem*.

The fatal termination to the case was unfortunate. But though it was felt that something must be done for the relief of the patient, it was with the full knowledge that tracheotomy in such cases is not only a very difficult operation to perform, but rarely gives relief, and in point of fact appears to have frequently terminated the patient's existence. However, it was thought better to attempt it than to let the patient die of suffocation.

THE CHLOROFORM QUESTION AND THE REPORT OF THE SECOND HYDERABAD COMMISSION.

THE results of the experiments of the Chloroform Commission, which has been conducted at Hyderabad by the generosity of the Nizam, and the labours of which have just been completed and given to the scientific world in a preliminary report published in the "Lancet" for January 18th, 1890, are of such vast importance that we make no excuse for recording the conclusions here. Quite new facts have come out from these experiments, or, rather, new confirmation of old facts and theories which were long ago broached by eminent surgeons who advocated the use of chloroform as an anæsthetic suitable for all purposes. The opinion held by Syme and Simpson that chloroform when it killed did so by reason of respiratory failure, and not from cardiac paralysis, was commonly held

to be opposed to experiment and practice, as it certainly has been to the teaching of the London Schools. Surgeon-Major Lawrie, a member of both Commissions, says that he has killed scores of dogs with chloroform, and in every case death has resulted from failure of the respiratory function; also that he has given chloroform in surgery without a death for more than twenty years, and during the last fifteen years five to ten times a day, and has never seen syncope or failure of the heart's action produced by it. It has been argued that syncope from chloroform occurs as a primary phenomenon during the initial stages of chloroform anæsthesia, and that this is the form of heart failure which occurs in human beings, though not in dogs. Surgeon-Major Lawrie states that in the course of his very large experience, he has never met with a single instance of such an accident, and, if it ever does occur, it cannot be due to chloroform poisoning, though it might be caused by fright or shock. Patients have a dread of chloroform, since they are taught to believe that the anæsthetic causes cardiac failure. Fainting from mere fright in the early stages of inhalation is intelligible and preventible, and syncope may be produced during the initial stages of chloroform inhalation if an operation be commenced before insensibility to possible shock is arrived at.

Surgeon-Major Lawrie contends also against any idea of "secondary syncope," which the "Lancet," representing the London School of thought, argued was produced by respiratory embarrassment as the "result of the accumulation of chloroform in the blood, leading to paralysis of the respiratory centre, and occurring late in the administration." Surgeon-Major Lawrie asserts that secondary syncope has no more real existence than primary syncope; the heart fails when the respiration ceases, and not before, and when it fails it is as a direct result of the stoppage of respiration, and as an indirect, and not direct, effect of the poisoning by chloroform. These remarks of Surgeon-Major Lawrie's were embodied in a report of a commission appointed by the Nizam of Hyderabad, in 1888, to verify or refute the opinion that chloroform, properly administered, has no injurious or dangerous effect upon the heart. Two hundred experiments were performed upon dogs, and the result was arrived at that, if the respiration be carefully watched during the administration, it is possible to avert all risk to the heart. Indeed, so far from the danger signal arising from the condition of the heart, the contention is, that if the administration is pushed far enough to cause the heart to show signs of danger, the limits of safety have already been passed, and a fatal result must almost inevitably ensue. Of course, as Surgeon-Major Lawrie states, these conclusions go directly in the teeth of those arrived at by the commissions appointed by the Royal Medical and Chirurgical Society and the British Medical Association, and the teaching of physiologists such as Snow, Claude Bernard, and McKendrick. Surgeon-Major Lawrie goes further, and states that the experiments upon which these conclusions rest are few, fallacious, and performed under conditions which invalidate their importance.

The result of this argument between the "Lancet," as representing the teaching of London, and Surgeon-Major Lawrie, as representing the teaching of Syme and Edinburgh, and the result of the first Hyderabad

Commission, was the formation of a second commission, with an offer of £1000 from the Nizam's Government for the "Lancet" to send out an English representative to continue and amplify the experiments already undertaken, and thresh the subject out thoroughly whether chloroform affects the heart or not. Dr. Lauder Brunton was chosen by the "Lancet" as the English representative, and the commission was formed as follows :—

EDWIN LAWRIE, President.	
LAUDER BRUNTON	} Members.
G. BOMFORD	
RUSTOMI D. HAKIM	

The report presented forms one of the most interesting documents published for a long time, concerning, as it does, the welfare of the thousands submitted to surgical operation.

The first series of experiments amounted to 430 : 268 dogs and 31 monkeys were killed outright, and 86 dogs and 39 monkeys were submitted to artificial respiration after natural respiration had been arrested with chloroform. The animals killed had chloroform administered to them in every possible way and under every conceivable condition—fasting, after full meals, after administration of Liebig's extract, coffee, rectified spirits, ammonia, phosphorous (to induce fatty heart), morphia, strychnine, and atropine, singly or in combination. The results were uniform. Wherever chloroform was pushed the respiration stopped before the heart. The heart ceased to act in the majority of uncomplicated cases in from two to six minutes after the stoppage of respiration, and the maximum time observed was eleven minutes in a dog and twelve minutes in a monkey. The effects of chloroform do not appear to be much influenced or interfered with by the method of preparation for, or administration of, the anæsthetic, except under four conditions, viz. : in cases of very slow or prolonged administration ; in cases accompanied with partial asphyxia ; in one case, where one-third of a grain of atropine was administered before the inhalation, the heart stopped very soon after the cessation of respiration ; and in all cases where there was much struggling, the animals very rapidly became insensible. In these cases the interval between respiratory cessation and the time of possible restoration by artificial respiration was shortened. Artificial respiration was nearly always successful if commenced within thirty seconds after cessation of the respiration, seldom successful if this period was passed, and never successful if one minute had elapsed. When morphia had been injected previously to anæsthetisation, artificial respiration was less successful in restoring respiration after its cessation. A large number of experiments were made with recording apparatus upon dogs and monkeys, and a few upon horses, goats, cats, and rabbits, in order to show the effect upon the blood pressure, heart, and respiration of inhalations of chloroform, ether, and the A. C. E. mixture, administered in various ways and under varying conditions. The results arrived at were the following :—

1. Chloroform, given continuously and freely diluted with air, causes a *gradual* fall in the blood pressure, provided respiration is not interfered with, and there is no struggling or involuntary holding of the breath, quiet breathing being almost invariably obtained when the anæsthetic is

sufficiently diluted with air. As the blood pressure falls, the animal first becomes insensible, the respiration gradually ceases, and finally the heart. However concentrated the chloroform, it never causes sudden death from cardiac stoppage. The more diluted the chloroform the more gradual is the fall in blood pressure.

2. With interruption of the inhalation the fall of pressure continues at a rate depending upon the rapidity of the fall before the interruption, and the after-fall is probably due to absorption of a portion of the residue of chloroform in the air-passages.

3. If the chloroform administration is stopped at an early stage, pressure very soon begins to rise again to normal; but if the chloroform is pushed, there is a period when blood pressure and respiration can no longer be restored spontaneously, although the heart goes on beating.

4. The respiration sometimes stops completely, and blood pressure rises, respiration commencing again with the rise, if the fall has been very gradual; but, as a rule, if respiration has stopped or become slow and feeble at the time the inhalation is discontinued, and artificial respiration is not resorted to, the fall in blood pressure will continue till death follows.

5. Struggling and holding the breath disturb the gradual fall of pressure. While struggling raises it generally, it in a dog much weakened from phosphorus, fell every time it struggled. Struggling, accompanied frequently, with acceleration of the respiration and pulse, especially if the former be deep and gasping, leads to more rapid inhalation and greater after-fall. The effect of involuntarily holding the breath often causes very sudden fall, with marked slowing of the heart's action. With drawing of the breath the pressure rises, but gasping respiration succeeding, causes very rapid inhalation, with immediate sensibility and rapid fall of pressure, quickly becoming dangerous.

The combination of struggling and holding the breath and gasping (as in chloroform closely applied to the face, and without sufficient dilution), causes violent fluctuations, speedy fall of blood pressure, dangerous depression, deep insensibility, and early stoppage of respiration, and the after-fall in these cases is rapid and prolonged.

6. Slight continuous asphyxia, as from pressure upon the neck, or hindrance of chest movements, causes irregular and exaggerated oscillations of blood pressure and slowing and irregularity of the heart's action. If accompanied with gasping respiration it increases the intake of chloroform, and causes a rapid decline of blood pressure.

7. Complete, or almost complete, asphyxia (forcibly closing mouth or nose, or tracheotomy tube) causes extremely rapid fall in blood pressure, and excessively slow cardiac action, even temporary stoppage, and the tracings resemble those produced by irritation of the cut end of the vagus. This effect of asphyxia is due to stimulation of the vagi and section of both vagi abolishes it, as does atropine (which paralyses the vagus endings).

8. Experiments in which the vagi were deliberately irritated during anaesthesia show that irritation of the vagi diminishes rather than enhances the danger of anaesthetics. The slowing of the heart and

circulation caused by vagus irritation (as in holding the breath in chloroform administration), retards the inhalation of chloroform and its conveyance to the nerve centres, and of itself slowing or temporary stoppage of the heart during chloroform administration is not dangerous. However, in chloroform administration, with the rise of pressure after temporary slowing of the heart and fall of pressure produced by any form of asphyxia, violent action of the heart, and efforts at respiration result, leading to rapid and dangerous inhalation of chloroform, and rapid and dangerous decline in blood pressure. It is the temporary exhaustion of the vagi after stimulation, and not the actual stimulation itself, which is to be feared. During chloroform administration neither holding the breath nor vagus inhibition can be kept up beyond a certain time, and if the chloroform be not removed from the face, one of two things must happen, viz., either great overdosing on re-establishment of respiration, or the rebounding action of the heart, causing acceleration of the circulation, the blood is quickly saturated with chloroform, and an overdose carried to the nerve centres. The commonly held theory that the danger in chloroform administration consists in slowing the heart by vagus inhibition is absolutely incorrect. It is the exhaustion of the nerve which is dangerous, not its stimulation. With a condition in which there is rapid and bounding pulse and high blood pressure, there is increased absorption of chloroform and propulsion to the medulla, more rapid paralysis of the respiratory and vasomotor centres, and precipitous fall in the pressure. Such a condition is produced in some cases by ether, division of both vagi, or a full dose of atropine. The heart already working as forcibly as possible is unable to prevent by increased work the fall in blood pressure occurring when the vasomotor centre is paralysed. Direct action of chloroform upon the cardiac tissue is not the cause of the fall of blood pressure when it is inhaled. Indeed, if it had any effect of this kind it would become rather a source of safety than danger.

9. The effect of artificial respiration, after cessation of the natural respiration, is to cause, first, an alternate rise and fall in the blood pressure, and then a continuous rise, with final restoration of the natural respiration. In a few cases—e.g., a phosphorous dog and a horse which had an enormous overdose—artificial respiration was unsuccessful.

10. Complete stoppage of respiration always means that an overdose has been administered, and it may have been so great as to produce prolonged inhalation after fall of blood pressure, and render restoration impossible, and it is impossible to say when the latter may not fail. A great deal depends upon the amount of the after-fall. Still, the success of artificial respiration in restoring the blood pressure is, in some cases, very remarkable, even when the heart has ceased beating, and the animal is apparently dead.

11. The dangers of too vigorous artificial respiration were instanced by rupture of the liver, and in one case the pleural cavity was found full of blood. Irritability of the heart after death was noticed in many cases, but was most marked where ether had been employed. Chloroform, when injected into the heart through the jugular vein, did not cause clotting of the blood as when ether was injected.

12. Morphine was shown to have no effect in shortening the period which may be allowed to elapse between the cessation of respiration and commencement of artificial respiration. Other drugs used had no effect upon the action of chloroform, except when their own special action became the leading feature.

13. The Committee proved by a number of experiments that shock, however induced, produced only the action due to stimulation of a sensory nerve, and nothing suggestive of syncope or failure of the heart's action, and chloroform has, therefore, no power to increase the tendency to shock in operations, and in order to test this conclusion still further the vagi were irritated during dangerous chloroform narcosis, and it was found that the inhibition produced prevented rather than assisted the fatal effect of prolonged chloroform inhalation. The danger begins when the irritation is discontinued or fails any longer to inhibit the heart, and thus enable the chloroform in the lungs to be rapidly absorbed and thrown into the system, and this danger is increased by deliberately pumping the chloroform into the lungs by artificial respiration. Other experiments showed conclusively that chloroform does not increase the action of electrical stimuli applied to the vagi. The inevitable conclusion from a number of experiments (Goltz's experiments repeated on dogs, violent blows on the testicle, section of the splanchnics) is, that chloroform has no power to increase the tendency to shock or syncope during operations, and if either of these occur, it prevents rather than aggravates the danger of chloroform inhalation.

14. Experiments upon dogs dosed with phosphorus showed that fatty heart is not affected by chloroform, and shock could not be more readily produced in these animals than in healthy ones. Chloroform in no way endangers a fatty heart, but by lowering the blood pressure lessens the work such a heart has to accomplish. Such patients die from very slight exertion or from fright.

15. The effect of hæmorrhage was tested by opening the femoral artery and allowing a considerable amount of blood to escape. Immediate lowering of the blood pressure results, which, though dangerous in itself, does not affect the action of chloroform, except that in such conditions less chloroform would be required to lead to anaesthesia, and the lowering of the pressure would prevent too rapid intake of the anæsthetic.

16. An animal in the vertical position is not more prone to shock during various operations, and inversion of the body—head downwards—failed to restore an animal in the last stage of chloroform poisoning.

17. Certain differences in the manner of behaviour of different animals to chloroform are stated, but as far as its anæsthetic action goes, it is the same for all.

18. Experiments with ether showed that efficient anæsthetisation is not possible, unless some form of inhaler is used which thoroughly excludes air. If an ordinary cap, containing a sponge saturated and applied to the face very closely, the animal holding its breath and struggling, we get immediate fall of blood pressure and slowing of the heart. If the ether is continued a condition of semi-anæsthesia results, the pressure rising and falling to a slight degree. When air is rigidly

excluded, pressure falls gradually as with chloroform, and with the same phenomena, anaesthesia, cessation of respiration, then of the heart, then death. It is impossible to say how far this is due to ether, and how far to asphyxia. Exactly similar effects can be brought about by making the animal inhale carbonic acid gas alone. So, if surgeons are content with semi-anaesthesia, it can be produced with perfect safety, though discomfort, by holding ether rather closely over the mouth. If perfect anaesthesia is required, it must be obtained by rigid exclusion of air, and then the same dangers exist as in chloroform inhalations. The blood pressure may fall very rapidly and death ensue. Injection of ether into the jugular vein produces a fall of blood pressure and anaesthesia just as chloroform, but leads to formation of large clots in the heart, which the latter does not.

19. The A. C. E. mixture given gently, with plenty of air and usual chloroform conditions, produces the typical chloroform tracing. Given freely to a struggling animal, it can produce a very rapid and dangerous fall of blood pressure.

20. As to the accidental deaths which occurred during chloroform anaesthetisation they were due to neglect in watching the respiration, or reckless administration of chloroform to prevent struggling, just as they probably occur in the human subject, and they explain those cases of supposed "sudden death" for which there is not the slightest evidence to warrant the assumption that a single one of them was due to paralysis or sudden stoppage of the heart as Snow assumes.

The behaviour of lower animals to chloroform is just the same as the human being, and the statement so frequently made that dogs are more resistant to chloroform than human beings is entirely incorrect.

Such are in the main the conclusions come to by this Commission. They have been in this report but little abridged here and there. It is seen what important results have attended these experiments, an importance which cannot be over-estimated. It is not as if the Commission drew sweeping calculations from few or imperfect experiments. The evidence upon which these conclusions are based is very extensive, and if all our preconceived ideas about chloroform are shown to be erroneous, we are bound to admit that the evidence is conclusive. It is useless to argue as the "Lancet" does in a leading article (of January 18, 1890) that without abundant evidence the conclusions of the Commission cannot be accepted. Six hundred experiments have been made in this enquiry, and the results absolutely confirm the experiments and conclusions of the first enquiry. What more can be required? In a leader of September 21, 1890, the "Lancet" remarks :—

"Why do the results of the Nizam's Commission differ from those of European and American investigators? Is it because the experiments in India were carried on in a warmer climate? Or is it because the animals experimented upon were peculiarly resistant to the action of chloroform? These questions can only be answered by further experiments, which can hardly fail to be of practical utility, even if they afford only a partial solution of the problem; for Surgeon-Major Lawrie states in his letter, which appeared in our issue of May 11, that the results of the experiments carried out by the Commission tallied exactly with his own experience. In the correspondence which occurred on the subject in the

"Lancet," some writers agreed with Dr. Lawrie, while others supported the opposite view. We may, perhaps, fairly call these two views those of the Edinburgh and London schools. In the Scotch capital, failure of respiration is regarded as the chief or only danger; while in the metropolis, failure of the heart is more feared. It is quite possible that the surgeons in both cities are right, and that the habits or mode of living of the people may lead to differences in the resisting power of the cardiac or respiratory apparatus respectively. The proportion of gouty patients is much larger in London than in Edinburgh, and when we consider that the natives of India appear to resemble the Scotch in their comparative immunity from cardiac paralysis by chloroform, it will be advisable for the Commission to ascertain, if possible, what the conditions are which enable the heart either in dogs or men to resist the power of chloroform, or which lead to its stoppage during the administration of the drug. It may not be possible to work out completely all the questions which may arise, but if the Hyderabad Commission, with the aid of Dr. Lauder Brunton, can settle definitely the question whether chloroform does or does not affect the heart directly, a most important practical object will have been attained by means of the Nizam's generous offer."

One might grant the possibility that there is a striking difference in the constitution of a European and an Indian, but it is surely refining criticism to suggest that there should be such a difference between the man of Edinburgh and the man of London as to make the former less liable to cardiac paralysis from chloroform than the latter. That either the natives of India or the citizens of Edinburgh are any less liable to cardiac paralysis than the citizens of London we do not believe. While in London all teaching has been to insist upon attention being paid alone to the heart during chloroform administration, in Edinburgh, and with those who, like Surgeon-Major Lawrie, have imbibed the teaching of this school, attention has been paid primarily to the respiration as a danger signal. Consequently, those who have followed the latter as a guiding principle have had a much more favourable record of experience than those who, by relying upon cardiac signs have allowed the favourable moment for recovery to pass by. It is this which makes the apparent difference between the results of chloroform anæsthetisation in Edinburgh, and India, and London, and not, in all reasonable probability, any difference in climate. It must be remembered that the results arrived at experimentally by these two commissions endorse the conclusions arrived at long ago from clinical observation by the Edinburgh teachers. Until some investigation upon the same scale, conducted in London or America, can show the conclusions arrived at by the Hyderabad Commission to be erroneous, there seems to be no course open but to accept these conclusions fully.

The report of this Commission concludes with some practical considerations, which we will append in the commissioners' own words :—

PRACTICAL CONCLUSIONS.

The following are the practical conclusions which the Commission think may fairly be deduced from the experiments recorded in this report :—

1. The recumbent position on the back and absolute freedom of respiration are essential.

II. If during an operation the recumbent position on the back cannot, from any cause, be maintained during chloroform administration, the utmost attention to the respiration is necessary to prevent asphyxia or an overdose. If there is any doubt whatever about the state of respiration, the patient should be at once restored to the recumbent position on the back.

III. To ensure absolute freedom of respiration, tight clothing of every kind, either on the neck, chest, or abdomen, is to be strictly avoided; and no assistants or bystanders should be allowed to exert pressure on any part of the patient's thorax or abdomen, even though the patient be struggling violently. If struggling does occur, it is always possible to hold the patient down by pressure on the shoulders, pelvis, or legs without doing anything which can by any possibility interfere with the free movements of respiration.

IV. An apparatus is not essential, and ought not to be used, as, being made to fit the face, it must tend to produce a certain amount of asphyxia. Moreover, it is apt to take up part of the attention which is required elsewhere. In short, no matter how it is made, it introduces an element of danger into the administration. A convenient form of inhaler is an open cone or cap with a little absorbent cotton inside at the apex.

V. At the commencement of inhalation care should be taken, by not holding the cap too close over the mouth and nose, to avoid exciting, struggling, or holding the breath. If struggling or holding the breath do occur, great care is necessary to avoid an over-dose during the deep inspirations which follow. When quiet breathing is ensured as the patient begins to go over, there is no reason why the inhaler should not be applied close to the face; and all that is then necessary is to watch the cornea and to see that the respiration is not interfered with.

VI. In children, crying ensures free admission of chloroform into the lungs; but as struggling and holding the breath can hardly be avoided, and one or two whiffs of chloroform may be sufficient to produce complete insensibility, they should always be allowed to inhale a little fresh air during the first deep inspirations which follow. In any struggling persons, but especially in children, it is essential to remove the inhaler after the first or second deep inspiration, as enough chloroform may have been inhaled to produce deep anæsthesia, and this may only appear, or may deepen, after the chloroform is stopped (*vide supra*). Struggling is best avoided in adults by making them blow out hard after each inspiration during the inhalation.

VII. The patient is, as a rule, anæsthetised and ready for the operation to be commenced when unconscious winking is no longer produced by touching the surface of the eye with the tip of the finger. The anæsthetic should never under any circumstances be pushed till the respiration stops; but when once the cornea is insensitive, the patient should be kept gently under by occasional inhalations, and not be allowed to come out and renew the stage of struggling and resistance.

VIII. As a rule, no operation should be commenced until the patient is fully under the influence of the anæsthetic, so as to avoid all chance of death from surgical shock or fright.

IX. The administrator should be guided as to the effect entirely by the respiration. His only object, while producing anaesthesia, is to see that the respiration is not interfered with.

X. If possible, the patient's chest and abdomen should be exposed during chloroform inhalation, so that the respiratory movements can be seen by the administrator. If anything interferes with the respiration in any way, however slightly, even if this occurs at the very commencement of the administration, if breath is held, or if there is stertor, the inhalation should be stopped until the breathing is natural again. This may sometimes create delay and inconvenience with inexperienced administrators, but experience will make any administrator so familiar with the respiratory functions under chloroform that he will in a short time know almost by intuition whether anything is going wrong, and be able to put it right without delay before any danger arises.

XI. If the breathing becomes embarrassed, the lower jaw should be pulled, or pushed from behind the angles, forward, so that the lower teeth protrude in front of the upper. This raises the epiglottis and frees the larynx. At the same time it is well to assist the respiration artificially until the embarrassment passes off.

XII. If by any accident the respiration stops, artificial respiration should be commenced at once, while an assistant lowers the head and draws forward the tongue with catch-forceps, by Howard's method, assisted by compression and relaxation of the thoracic walls. Artificial respiration should be continued until there is no doubt whatever that natural respiration is completely re-established.

XIII. A small dose of morphia may be injected subcutaneously before chloroform inhalation, as it helps to keep the patient in a state of anaesthesia in prolonged operations. There is nothing to show that atropine does any good in connection with the administration of chloroform, and it may do a very great deal of harm.

XIV. Alcohol may be given with advantage before operations under chloroform, provided it does not cause excitement, and merely has the effect of giving a patient confidence and steadying the circulation.

The Commission has no doubt whatever that, if the above rules be followed, chloroform may be given in any case requiring an operation with perfect ease and absolute safety, so as to do good without the risk of evil.

EDWARD LAWRIE (President),	} Members.
T. LAUDER BRUNTON,	
G. BOMFORD,	
RUSTOMJI D. HAKIM,	
EDWARD LAWRIE, Surgeon-Major.	

Hyderabad, December 18, 1889.

NEW INSTRUMENTS, THERAPEUTICS, and DIPHTHERIA.

Brown, Moreau R.—*A Nasal Ecchondrotome.* "The Medical Record," October 5, 1889.

THE description of this handy instrument which is accompanied by an illustration of it, ought to be read by all those who are in the habit of using the saw, knife, and chisel for the removal of ecchondroses and cancellous exostoses from the nose.

B. J. Baron.

Roe, Johnston, Morgan.—*Presentation of Instruments at the Eleventh Meeting of the American Laryngological Association of New York.* "New York Medical Journal," October 26, 1889.

Dr. ROE showed—

1. A New Esophageal Bougie.—The tip of this conical bougie is made of soft rubber to facilitate passage through a stricture, and the base of the case is made of vulcanite for dilating purposes, and it is screwed on to a flexible whalebone stem.

2. An Improved Powder Blower.—This is an almost exact reproduction with trifling alterations of the instrument used by Politzer, and figured in his book on ear disease, translated by Cassells, 1883, and an example of which we have used with much advantage for several years. The idea is the familiar one of a reservoir to hold powder communicating with the tube that holds a charge of it, and which can be emptied at will by blowing through it.

3. A Nasal Bow-Saw.—This is said to be an improvement on Bosworth's saw, which Dr. Roe considers is too flexible, and apt to make a curved cut.

Dr. S. JOHNSTON showed a pharyngeal douche, consisting of a soda water syphon, charged in the usual way, and with a soft rubber tube, twelve inches long, attached to the nozzle.

The tube is passed into the mouth, the tap pressed, and at once the soda water flows into the throat and out again through the mouth or nose. This strikes one as a most original and simple suggestion.

Dr. MORGAN showed a modification of Voltolini's palate retractor, the handle being so bent as to allow an assistant to draw the velum forcibly forward, and yet keep his hand out of the way of the operator.

B. J. Baron.

Gallardo.—*Toxic Action of Cocaine as a Local Anesthetic.* "Revista de Medicina y Cirugía Prácticas," October 7, 1889.

THE author, who has very often used this drug as a hypodermic injection, refers to the following case in which he practised an injection of 15 per cent. in order to extirpate an epithelioma of the nose. Hæmorrhage was

slight, but one hour afterwards the patient began to feel heaviness of the head, and giddiness, the skin was pale and cold, the pulse thready, and almost imperceptible in either radial artery, respirations were slowed, and cardiac movements were almost inaudible by auscultation. Stimulating diffusible drugs were administered by the mouth and hypodermically, and the patient eventually recovered, but not until four hours after the onset of symptoms.

Ramon de la Sota.

Stein (Moscow).—*Trichloracetic Acid in Diseases of the Throat.* Congrès de Laryngol., Paris, 1889.

HE has employed this in various dilutions (1 to 1½ per cent.), and has found it superior to chromic acid, and even in certain cases to the galvanocautery.

Joal.

Ruault.—*Sulphoranic Acid as a Vehicle for the Solution of certain Phenols applicable topically for Affections of the Upper Air Passages and especially in Tubercular Laryngitis.* "Revue de Laryngologie," November 15, 1889.

THIS acid has hitherto been used only in commerce for the fixing of certain dye-matters. It is a syrupy substance not irritating the mucous membranes, and mixed with water yields pretty stable emulsions. Forty per cent. of phenic acid (crystallised), and 15 per cent. of salol or naphthol β, can be dissolved in it. Ruault employs sulphoranic naphthol topically in tubercular ulcerations of the larynx with good effect.

Joal.

Hirsh A. (Orel).—*Antipyrin in Whooping Cough.* "Meditsinskiĭ Obozreniĭ," 1889, Nos. 15 and 16, p. 224.

FOLLOWING Genzer's recommendations the writer tried antipyrin (internally, 4 or 5 grains, two or three times a day) in five cases of whooping cough occurring to children aged from seven to eleven, and previously ineffectively treated by belladonna and other orthodox means. In every one of the patients the administration of the remedy was rapidly followed by a very marked and steady decrease in the frequency and intensity of the paroxysms, the "whoops" disappearing entirely in one or two weeks, after which complete recovery soon took place. In one of the cases the convulsive symptoms were distinctly cut short by the drug at their very commencement.

Valerius Idelson.

Van Puteren, Mikhail D. (St. Petersburg).—*On the Treatment of Thrush by Brushing.* "Vrach," 1889, No. 41, p. 917.

BASING his communication on extensive personal observations in the St. Petersburg *Vospitatelnyi Dom* (Foundling Home), where fever is always prevalent to an appalling extent, Dr. Van Puteren states that the treatment of the affection by painting with a 3 per cent. boracic acid solution or a ½ per cent. one of corrosive sublimate gives utterly unsatisfactory results. The mercurial paintings even sometimes make things worse, since the method is apt to give rise to stomatitis.

The best means is said to consist in mechanically removing the thrush fungi by means of a brush. Any fears about inducing consecutive ulceration by brushing are altogether groundless. As the author's comparative

experiments have shown, in cases treated after this plan, ulcers occur by no means more frequently than in those treated by boracic acid or corrosive sublimate.

Valerius Idelson.

Küttner (Berlin).—*Electrolysis, its Effects and Methods of Application to Solid Tumours.* "Berlin Klin. Woch.," 1889, Nos. 75 and 76.

IN this paper is found a very exact description of the apparatus for electrolysis and the method of its application. The study of the author's work may be recommended to all who desire to apply this method. As to the relative value of electrolysis the author contends that it may be applied in all cases where other methods are impracticable. In cases where there is no special object in preserving the surface other methods are perhaps better. But as an operation for naso-pharyngeal tumours electrolysis gives the best prognosis, *quoad vitam et sanationem*, and it is also the best method of procuring local destruction and absorption.

Michael.

Heryng (Warsaw).—*The Treatment of Chronic Tubercular Infiltrations by Electrolysis.* Congrès Inter. de Laryngol., Paris, September, 1889.

THIS treatment has lately been recommended by Voltolini. Heryng has tried it on five patients, and in two cases the success has been surprising. One patient has been completely freed from tubercular infiltration of the epiglottic folds. The second suffered from a chronic tubercular epiglottitis with ulceration, and the condition has resisted the employment of lactic acid and the curette. After two applications of electrolysis, the infiltration of the epiglottis, which was a centimètre thick, entirely disappeared without pain or inflammatory action, and the ulceration was cicatrized in three weeks. The patient having succumbed from dysentery, an autopsy was made, and microscopic preparations demonstrated that the patients treated by electrolysis were completely cured, a thick layer of pavement epithelium covering the formerly ulcerated surface.

Joal.

Egidi.—*The First Intubation for Croup performed in Italy.* "Archivii Italiani di Laringologia." 1889.

THIS operation has not met with the same success in Italy as in America. It is the merit of Egidi, however, to have introduced it into practice in that country. His cases, although they ended fatally, are very instructive, and confirm the opinion that intubation does not entirely replace tracheotomy. Four cases, however, were afterwards operated upon, with three recoveries, a success so striking that he, though previously an opponent to the method, presented the record of these to the Royal Academy of Medicine and Surgery, in Naples. The first unsuccessful cases have, of course, no value, and not too much importance is to be attached to the first successes, but the author arrives at the opinion that if intubation is always done in croup, it may many times spare the operation of tracheotomy; and from employing the combined methods, that is, intubation, when possible, and tracheotomy, when necessary, we may hope to get the best success.

Massi.

Armstrong, G. E.—*Intubation v. Tracheotomy.* "Montreal Medical Journal," June, 1889.

THE writer reported ten cases of diphtheria with four recoveries : forty per centum—a good showing. In all cases but one, pseudo-membrane had been seen in some part of the pharynx, before, after, or at the time of the operation, so that there can be no reasonable doubt but that nine of the cases were of the nature of diphtheria. Speaking generally, however, how much it must add to the accuracy of statistics, if, in all cases where intubation was demanded, a rhinoscopic and laryngoscopic examination were made by an expert. In the experience of the reviewer, intubation is exceptionally successful in croup, whereas in diphtheria of the larynx, it is very far from satisfactory in its results. Feeding by the œsophageal tube should be carried out in every case, as foreign-body pneumonia has frequently proved itself the cause of death.

George W. Major.

Egidi (Rome).—*Intubation and Tracheotomy.* Congrès Inter. de Laryngol., Paris, 1889.

THE author demonstrated by statistics collected by himself that tracheotomy ought to be preferred to intubation.

Joal.

Ranke (Munich).—*On Intubation.* 62 "Versammlung Deutscher Naturforscher u. Aerzte in Heidelberg." September, 18-25, 1889.

THE author reaches the following conclusions :—

1. Intubation marks a decided progress in the therapeutics of diphtheria.
2. Tracheotomy and intubation ought to complement one another.
3. The best results will be arrived at in good hygienic hospitals.

In the discussion, Biedert, of Hagenau, recommended the appointment of a commission to collect statistics as to the results of tracheotomy, composed of Drs. Steffen, Ranke, Ganghofner, and Wyss. Escherich, Heubner, Wyss, and Hagenbach endorsed Ranke's views as to intubation.

Michael.

Illingworth, C. R. (Accrington).—*The Treatment of Diphtheria.* "British Medical Journal," April 27, 1889.

THE author repeats his recommendations of the biniodide of mercury as a local application in this disease. He prepares it thus : To six ounces of the B.P. solution of the bichloride of mercury add 40 minims of a 1 in 4 solution of sodium iodide. Add an equal quantity of water to this solution, and use as a spray of 1 in 2000. The same in scarlatina.

Hunter Mackenzie.

Haig-Brown.—*Two Cases of Diphtheria Involving a Wound.* "British Medical Journal," June 8, 1889.

IN the one case a wound over the internal condyle of the right humerus was infected, the axillary glands being enlarged, fever and albuminuria being present, and an ashy-grey pellicle covering the wound.

The second case was that of a wound on the right shin, in which diphtheria supervened. In this case a patch of membrane on each tonsil, with painful and swollen cervical glands followed. The patient died

suddenly from syncope. This patient was the father of the girl first mentioned. There was no evidence of direct infection from any other case or diphtheria in either patient. In the man's case, the throat may obviously have been infected direct from the leg. The father was *not* infected by the daughter directly, though he may have been so indirectly. The sanitary condition of the house was very bad; the drinking water and milk were good.

Norris Wolfenden.

Adler.—*Diphtheritic Paralysis.* "The American Lancet," October, 1889.

THIS is merely a summary of the well known symptoms, etc., of the disease, also of the usual treatment.

B. J. Baron.

Caiger, F. L.—*Two Rapidly Fatal Cases of Diphtheritic Paralysis.* "Lancet," December 14, 1889.

BOTH were cases of faucial diphtheria (a man aged twenty-five, and a boy of five), and though paretic symptoms were present in each for a week before death, it was only within the last thirty-six hours that the cases assumed a serious aspect. The symptoms occurred during a late stage of convalescence in the fifth and sixth weeks. In both cases, the faucial affection was severe, and the membrane persistent. The author believes that it is the more severe cases which have the severest sequelæ, the mild cases usually escaping altogether. He is of opinion that a good many cases diagnosed to be of diphtheritic origin, the diagnosis is accepted on insufficient grounds. He has found that cases which, during the acute stage, present a large amount of mucoid secretion at the back of the pharynx, with rhinorrhœa, are the gravest, and rapidly reach a fatal termination.

R. Norris Wolfenden.

Gil y Ortega.—*Remarks upon Diphtheria.* "Correo Médico Castellano," June 10, 1889.—(A polemical article).

Ramon de la Sota.

Fuster.—*On Diphtheria.*—"Correo Médico Castellano," June 30, 1889.—(A polemical article).

Ramon de la Sota.

Heusch.—*On Diphtheria.* "Deutsch. Med. Wochensch.," 1889, No. 44.

Michael.

Leonhardi.—*Principles of Treatment of Diphtheria.* "Deutsch. Medicinal Zeitung," Nos. 39, 40.—(A recommendation of mercurial inunctions, the author being of opinion that tracheotomy is not of value).

Michael.

Kühn.—*Diphtheria and Erythema Exudativum Multiforme.* "Berlin Klin. Woch.," 1889, No. 43.—(The occurrence of both simultaneously in a young girl of thirteen).

Michael.

MOUTH, PHARYNX, &c.

Nancrede.—*Hare-Lip.* "Times and Register," August 10, 1889.

THE author presented a patient at his clinic at the Jefferson College, with the following remarks :—"This patient is a young woman of some eighteen years, and is unfortunate enough to be afflicted with hare-lip. This deformity is exceptionally calamitous in one of her sex, for they have no means of concealing it.

"She has already had an operation performed, but it was a miserable failure, and that fact makes a second operation more difficult and its success more uncertain. I shall make a lozenge-shaped incision, with the upper legs of the lozenge the longer. By bringing together the freshened edges, a slight pouting is produced below, just what we wish.

"I am proceeding with great deliberation as you see, and this is the main reason that hare-lip operations of the present day are more successful than they formerly were, that more time is taken.

"If there is a difference in level between the two sides of one-sixteenth of an inch, it can be noticed ; and my experience has been that those who have tried to make a so-called "brilliant" operation of this—finished it with a few quick cuts and several hasty stitches—are more likely to make a brilliant failure. I am accustomed to take the pins out in from forty-eight to seventy-two hours, and if I think the parts still need support to give it by placing across the incision a little cotton and covering with collodion."

R. Norris Wolfenden.

Bean.—*Report of Two Cases of Buccal Tuberculosis.* "New York Medical Journal," September 14, 1889.

As regards the treatment of these cases, the writer does not believe in the virtues of lactic acid, but thinks that thorough and deep curetting, with careful and repeated applications of the Paquelin or galvano-cautery, offers the most efficient plan of treatment of the primary manifestation, but is quite useless when secondary to lung complications. (Thorough curetting ought always to precede the application of lactic acid, and we have seen this method of treatment do much good, even in secondary cases.)

B. J. Baron.

Clark, Francis W. (Luton).—*Case of Salivary Calculus—Removal.* "British Medical Journal," April 27, 1889.

THE calculus weighed five grains, was oval in shape, and had a granular surface.

Hunter Mackenzie.

Barker, F. R. (Medical Staff).—*Notes of Cases of an Outbreak of Syphilis following on Tattooing.* "British Medical Journal," May 4th, 1889.

THE interest on these notes, so far as this Journal is concerned, consists in the fact that the saliva of the tattooer (syphilitic) was the source of the

virus. It is also remarkable that five out of twelve cases should have had distinct rupie as their primary local lesions. *Hunter Mackenzie.*

Barlow, Thomas (London).—*Hemiatrophy of the Tongue*. "British Medical Journal," May 4, 1889. Clinical Society of London, April 26, 1889.

EXHIBITION of a child, the subject of hemiatrophy of the tongue associated with cervical spinal disease. Two years previously the child had been pitched off a barrow on the top of the head. There appeared to be some peripheral paralysis, as indicated by difficulty in swallowing, etc. *Hunter Mackenzie.*

Browne, Lennox (London).—*On the Cocaine Habit in Diseases of the Throat and Nose*. "British Medical Journal," April 27, 1889.

THE author utters "a word of warning against the growing inclination to cultivate a cocaine habit," and he "emphasizes the injurious effects on the naso-pharyngeal and laryngeal mucous membrane" which are bound to follow the continued local application of this drug. *Hunter Mackenzie.*

Hayward.—*Obstruction of Wharton's Duct*. "British Medical Journal," October 12, 1889.

A PATIENT who had great pain and swelling in the neck, which had rapidly come on, also presented a large tender swelling in the submaxillary triangle of the left side, evidently a greatly distended submaxillary gland, The history pointing to obstruction of Wharton's duct; it was found on the patient opening his mouth that a short, thick fishbone was impacted in the left duct, the patient being unconscious of its presence. With its removal the gland returned to its normal condition within a few hours.

Norris Wolfenden.

Johnson, Raymond (London).—*Sarcoma of the Tonsil*. "British Medical Journal," May 4, 1889. Clinical Society of London, April 26, 1889.

THE patient was aged fifty-six, and had had syphilis. The left tonsil was the size of a small orange, and was ulcerated on the inner side. There were some enlarged glands on the side of the neck. The case was thought to be one of lympho-sarcoma. *Hunter Mackenzie.*

Thorner (Cincinnati).—*Chronic Throat Affections of Rheumatic Origin*. Transactions of the Ohio State Medical Society, 1889.

THE principal symptom of chronic rheumatic sore throat is pain localized in and about the laryngeal and pharyngeal regions. In most of the cases seen by the author, there appears to be a few spots which seem to be predisposed to the rheumatic attack,—viz., the posterior pillars of the fauces, the root of the tongue, the whole region over the hyoid bone, especially over the greater cornua, and the lateral parts of the thyroid cartilage. These rheumatic pains are intermittent and worse during changeable weather. Exceedingly painful spots are found on pressure, especially between the trachea and hyoid bone. Deglutition is generally, and phonation sometimes, difficult and painful. The whole neck may be affected, or fixed and turned towards one side with a kind of torticollis. Dry burning sensations are felt in the throat with the sensation of a foreign

body. There is locally more or less congestion of the mucous membrane, sometimes limited to small circumscribed spots, and these latter are always very sensitive. As a rule congestion and swelling are not pronounced, and may be absent. Erosions, ulcerations, neoplastic formations are never found in the throat. The vocal cords may present a slight degree of chronic laryngitis. The diagnosis must be chiefly based on the history and manifestation of rheumatism in other ways in the patient. The effect of treatment is sometimes the best aid for ascertaining the diagnosis. Local applications alone have failed in every instance, in the author's experience, to afford more than temporary relief. When congestion is pronounced, he has found solutions of nitrate of silver and chloride of zinc useful, and speaks well of the effect of the pigment recommended by Ingals (morphia, grs. 4, carbolic acid and tannic acid, grs. 30, glycerine and water, āā ʒiv.), also of counter-irritants applied to the skin above the painful spots, such as tincture of iodine or sinapisms. The best results are obtained from internal medication, such as salol or salicylate of sodium in large doses, but their action is not as prompt as in the acute form of rheumatism. When they failed, he could seldom obtain benefit from any other remedy. In very obstinate cases, he saw the best results follow the application of the electric current, or massage of the neck, or both together.

Norris Wolfenden.

Knight, C. H.—*Note on the Galvano-cautery in the Treatment of Hypertrophied Tonsils.* "New York Medical Journal," October 12, 1889.

THE author prefers the guillotine for children, but sometimes uses the galvano-caustic knife and point for adults. Galvano-cautery is more painful than amygdalotomy, and there is evidently no small amount of trouble involved in fixing the snare on the tonsil. The surrounding structures are apt to be burnt, and we hear of abscess, etc., thus produced. Haemorrhage, the writer admits, is very rarely serious in guillotine operations, and he quotes a case where it began five days after a galvano-cautery operation and was only stopped by compression of the carotid for ten days. No adequate reason for the use of any other instrument than the guillotine for the removal of ordinary large tonsils is brought forward in this paper, but for those extraordinarily large growths which cannot be pushed into the guillotine the galvano-cautery is evidently of value.

B. J. Baron.

Roe, J. O.—*The Treatment of Diseased Tonsils when unattended with Hypertrophy.* "New York Medical Journal," October 26, 1889.

THE author insists on a fact which is only too often lost sight of by those who are not in the habit of performing tonsillotomy, that whilst the chronic hypertrophy of a child's tonsil may subside, the gland will not usually return to its normal structure; and he mentions two forms of chronic diseased tonsil thus persisting.

1. A chronic disease of the crypts and lacunæ of the tonsil.
2. A fibroid degeneration of the stroma of the tonsil, or a cicatricial formation at the base of the tonsil.

The first condition is the result of chronic follicular inflammation, and is almost invariably associated with chronic follicular pharyngitis. The

second condition is also the result of follicular disease, except that simultaneously with the degeneration of the lymph follicles, there is a deposit of fibrous material in the stroma. The cicatricial formation at the base of the tonsils is the result of the frequent attacks of suppuration around the base of the tonsils, which is induced by the follicular disease. Careful examination, and, if necessary, the pulling forward by means of aneurism needles or a palate retractor, of the anterior pillars of the fauces, ought always to be carried out, and obscure reflex manifestations—neuralgia about the face, neck, and ear, irritation of the larynx, and hoarseness—may be cleared up. As to the treatment, after referring to caustics and galvano-cautery, the writer describes his method of dragging the tonsil out of its bed by the tenaculum, and cutting it away piecemeal with the bistoury as the only certain cure for this troublesome disease.

B. J. Baron.

Butler.—*Hæmorrhage after Removal of the Tonsils.* "New York Medical Journal," November 2, 1889.

THIS is a letter to the Editor of the Journal, in which Dr. Butler states a case in which there was alarming hæmorrhage after the partial removal of the tonsil of a girl, fourteen years of age. Astringents, cold, and pressure were quite useless, and the operator stopped the bleeding by drawing the stump towards the middle line with a tenaculum, transfixing it with a needle, and passing a piece of silver wire around it. The needle was removed, the wire cut short, and left in position for two days. The tonsil appears to have been a very hard fibrous one, and to this latter condition preventing closure of the vessels the operator considers that the serious hæmorrhage is to be ascribed.

B. J. Baron.

Burton (Cambridge).—*Carcinoma of Œsophagus involving the Right Recurrent Laryngeal Nerve.* "British Medical Journal," May 11, 1889. Cambridge Medical Society, March 1, 1889.

EXHIBITION of specimen taken from a schoolmistress, aged fifty years. The voice had been hoarse, and paralysis of the right recurrent nerve had been noted.

Hunter Mackenzie.

Longhurst.—*Impaction of a Splinter of Grouse Bone in the Œsophagus.* "British Medical Journal," October 5, 1889.

THE splinter of bone was easily removed with a probang, with relief to all the symptoms.

Norris Wolfenden.

NOSE, NASO-PHARYNX, &c.

Wortruba.—*Cholesteatoma of the Frontal Bone.* "Wien. Klin. Woch.," 1889, No. 47.

THE patient, twenty-two years of age, had a tumour the size of a goose egg on the frontal bone situated over the right eye. He related that the tumour had commenced to grow seven years previously, and had gradually

enlarged. The growth was extirpated, and microscopical examination proved it to be a cholesteatoma. The patient was cured. *Michael.*

Pancoast.—*Operation upon Nasal Septum.* "Times and Register," December 28, 1889.

THE author presented the case of a young man, at the Chirurgical Hospital, seventeen years of age, with a deformity of the nasal septum, the cartilage being bent to the left and almost completely closing the left nostril. The patient being etherized, an incision was made close to the left ala of the nose. A straight bistoury was then passed into the wound and the cartilage cut from the vomer, seized with a strong pair of forceps and forcibly bent over and straightened. Having arrested the hæmorrhage, the nostril was washed and plugged with iodoform gauze. The incision being so small, it did not require to be stitched. *R. Norris Wolfenden.*

Walsham.—*A Malleable Truss for Correcting Deformities of the Nose.* "Lancet," July 6, 1889.

THE truss consists of a piece of pewter cut to the size and shape of the nose, and secured above to a poro-plastic cap. The upper portion of the truss corresponding to the bridge of the nose is made of sufficient thickness to resist bending by any moderate force, being prolonged upwards in the form of a stem, ending in a flattened plate rivetted to the cap. The pewter is perforated to avoid heat and retention of perspiration. At the lower portion the metal is beaten out, so that at the tip and sides it is quite malleable, and can be moulded to position by the fingers. It is lined inside with soft chamois leather and covered outside with silk. The truss is a little difficult to put on in cases of prominent forehead, therefore, a hinge may be added at the junction of the truss with the cap. Where there is much deflection of the lateral cartilages generally, pressure on the nose can be increased by means of a spring lever.

Norris Wolfenden.

Pancoast.—*Epithelioma of Nose.* "Times and Register," December, 7, 1889.

THE author gave the history of a patient who had always had a dark spot on the left side of the nose. It began to give him trouble about a year ago. Itching and slight pain occurred at times. The spot became red and inflamed, and breaking down in the centre, formed a small ulcer, which began to spread. This is a curable form of cancer, if treated in time. A concentrated solution of zinc chloride was applied, and allowed to remain for a few minutes, after which a dressing of ung. zinci oxidi carbolizat. was applied. This has afforded excellent results so far, and an operation is not considered advisable until this treatment fails. The chloride of zinc solution was ordered to be applied daily, with the same dressing as before.

R. Norris Wolfenden.

Ziem (Dantzig).—*Intra-ocular and Nasal Disease.* "Berlin Klin. Woch.," 1889, No. 38.

THE author relates six cases in which a connection between nasal disorders and intra-ocular disturbances could be traced, and in which the treatment of the intra-nasal affection was followed by improvement or

cure of the ocular disorder produced by it. In all these cases, there was diminution of the visual area and decrease in the power of vision. In other cases, the ophthalmoscope showed the presence of venous hyperæmia of the papilla or other pathological conditions, the general cause of which was the disturbance in the circulation. These conditions cannot be looked upon as reflex neuroses, but as circulatory disturbances caused by the passive hyperæmia in the nasal mucous membrane, which in turn produced intra-ophthalmic hyperæmia. *Michael.*

Rethi (Vienna).—*Neuroses caused by the Treatment of the Nasal Cavity.*
"Internat. Klin. Rundschau," 1889, Nos. 51 and 52.

THIS paper is of considerable interest, since it is the beginning of a reaction against the abuse of nasal treatment. The author remarks that neuroses arising in a reflex manner from diseases of the nose can be cured by local treatment, but they may also be distinctly made worse, and, what is more, they may be originated when they have not previously been existent through local treatment of the nose. The author refers to the case quoted by Semon of Graves' disease produced by an operation for nasal polypi, and then relates his own observations as follows :—

1. A lady, twenty-five years of age, was treated with the galvano-cautery for nasal obstruction. The portions of the turbinated and septum thus operated upon were converted into cicatricial tissue. Ten days later the patient suffered from hemicrania and sneezing attacks. Both these attacks and the general condition deteriorated day by day. At first the patient had some relief from cocaine, but after a few days the good effects ceased. The author removed the cicatrices, and the patient was cured.

2. A patient, forty-seven years of age, operated upon for obstruction of the nose with the galvano-cautery and chromic acid, suffered from attacks of vertigo, increasing every day. The author removed a cicatrix from the right turbinated with the galvano-cautery, and the patient was cured.

3. A lady who had been treated with the galvano-cautery for chronic coryza suffered from violent attacks of sneezing some days after the completion of the treatment. In this case the condition of the patient could not be improved by the removal of the cicatrices left by the former treatment. Those cases prove that cicatrices in the nose may produce reflex neuroses, and that treatment of the nose should only be undertaken after very definite diagnosis has been arrived at. (They also prove what at the present time is still denied by some authors, viz., the existence of reflex neuroses, and their relation to local diseases and pathological nasal conditions.—*Rep.*) *Michael.*

Ziem (Dantzig).—*On Metastatic Affections in Nasal Diseases.* "Monats. für Ohrenheilk," November, 1889.

1. A PATIENT, five years old, had a swelling of the forehead and right eyelid for eight days, and the right foot was also swollen. The parents related that the brother of the patient had bitten her on the nose, and since that time the nose had been obstructed.

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Upon irrigation, a large amount of pus was removed from the nose. The tumours upon the frontal bone and eyelids became abscesses, and had to be incised. A few weeks later another abscess formed between the shoulders. A cure was afterwards obtained.

2. Erysipelatous swelling and abscesses of the face followed, in one case, chronic nasal disease and empyema of the antrum of Highmore.

The author regards these abscesses as metastatic, and relates many similar observations from literature. *Michael.*

Kayser (Breslau).—*On Respiration through the Nose.* "Zeitschrift für Ohrenheilk.," Heft 2.

EXPERIMENTS of the author conducted upon the living subject confirm the views of E. Paulsen, Kiel. In the horizontal position of the nasal cavities the air is directed to the higher regions of the nasal cavities, and if in the cadaver or in a phantom the anterior portion is removed, air or powders pass directly to the posterior wall. The fact is of great physiological importance as to the functions of the nose as regards the sense of smell, the cleansing of the cavities, and the warming of the inspired air.

Michael.

Spitza (Gressbach).—*Empyema of the Antrum of Highmore, caused by the Growing of a Molar Tooth into the Cavity.* "Wiener Med. Woch.," 1889, No. 49.

A PATIENT, ten years of age, had been feverish for some days, the right half of the face being swollen and phlegmonous. Opening on the right cheek was a fistula perforating the antrum. The eyeball was also protruded. A carious molar tooth was extracted without effect. An incision was therefore made into the cheek, and the antrum entered, and a great deal of pus evacuated. In the cavity was found a freely movable piece of bone. In order to remove this the alveolus of the extracted tooth was chiselled, and through the new aperture fell out a molar tooth. The case was cured in a short time, a new tooth appearing in the aperture, and filling it, so that no communication was left with the antrum.

Michael.

Hartmann (Berlin).—*Empyema of the Antrum of Highmore.* "Deutsch Med. Woch.," 1889, No. 50.

THE case of a patient who suffered from hæmorrhage from the nose after filling a molar tooth. For a long time the diagnosis could not be made; afterwards the bleeding passed into fetid serous discharge. The tooth was extracted and the antrum perforated. Injection of antiseptic fluid was given and pus was discharged through the nose, and the patient was cured.

Michael.

Lücke (Strasbourg).—*A Case of Angioma Ossificans in the Antrum of Highmore.* "Deutsch. Zeitschrift für Chirurgie," Band 30, Heft 1, 2.

THE patient, aged twenty-six, experienced very great pain and swelling in the right side of the face. Some sound teeth were extracted without effect. Then followed secretion of yellowish fluid from the right nasal cavity. In the mouth the anterior portion of the upper jaw was felt to be prominent. A certain diagnosis could, however, not be made, and the

patient being put under chloroform the bone was perforated with the thermo-cautery. Abundant hæmorrhage followed, which was only arrested by tamponing the opening made by the instrument with iodoform gauze. The patient became anæmic, and had to be treated with analeptic injections of camphor. This hæmorrhage, which was certainly not arterial, was characteristic of a very vascular tumour, and it was thought certain that a cavernous angioma was present. The tumour became larger, and some weeks later a second operation was performed under chloroform. An incision was made, similar to that advised by Langenbeck, for resection, the periosteum removed, and a thin piece of bone from the anterior wall, when a tumour became visible, which was found to be covered with granulations. With a chisel a large portion of the tumour was removed. Then followed great hæmorrhage and tamponing, and manual compressions had to be applied. Analeptic injections and transfusion became necessary. Every endeavour to remove the tampons during the next few weeks was followed by excessive hæmorrhage, so that they had to be left *in situ* for four weeks. Three months later the patient was cured. A microscopical examination made by Recklinghausen proved the growth to be an angioma ossificans or osteoma angiomatosum.

Michael.

Mann (St. Paul).—*Etiology of Atrophic Catarrh.* "Journal of Ophthalmology, Otology, and Laryngology," October, 1889.

THE author remarks upon the increase of nasal surgery during late years, which has led to various operations for hypertrophic rhinitis, in the course of which turbinated bodies "were twisted off, and snared off, and any "unevenness in the rhinal surfaces was effectually planed down with "saw, drill, or nasal plough." A good many of these cases returned cured of hypertrophy, but with atrophic catarrh. A change was then made in the treatment of hypertrophic catarrh: "a turn from all surgery to no surgery." Many cases of atrophic catarrh pass through a previous hypertrophic stage. Many are atrophic from the start. The essential factor underlying all the causes ascribed for atrophy is "retention of secretion." The mucus drying and remaining in contact with the membrane leads to maceration and destruction of the epithelium, and afterwards by blocking of the glands to the atrophy and destruction of their elements by pressure and chemical action. This process explains how we find an atrophic condition in one nostril with hypertrophy in the other. The inferior turbinateds may have almost entirely disappeared, while the middle are still considerably hypertrophied. Hypertrophy in itself is not a causative factor, but becomes etiologically significant only when it becomes excessive enough to interfere with the proper cleansing of the nostrils. Consequently hypertrophies should not be either removed or let alone at random, but they should be operated upon if they press upon the septum or imprison the secretion. *Norris Wolfenden.*

Berlinen (Breslau).—*On Ozena, its Treatment and Prophylaxis.* "Deutsch. Med. Woch.," 1889, No. 51.

THE author starts a new and original hypothesis as to the origin of ozena. He believes that the drying of the secretion and its fætor is due to con-

tact of the middle turbinated with the septum. He has observed in all cases of ozæna that this condition exists. He has also cured some cases by operations directed to the turbinated and the septum by means of an instrument devised by himself. It must, however, be allowed that if other observers, even, find this abnormal condition to be constant in ozæna, it is very unlikely that the contact of two small areas in the nasal cavity would be sufficient to change the character of a mucous membrane of such an extent as that of the nasal pharynx. The author's theory if "*non è vero*" is at least "*ben trovato*." *Michael.*

Moure.—*The Treatment of Ozæna.* "La Tribune Médicale," 1889.

THE general management of ozæna, which is so rebellious to treatment, consists especially in modifying the general condition, and for this purpose we can use the preparations of iodine, arsenic, etc., but a residence at the seaside generally gives the best results. It is more especially the local treatment which engages our attention. This will consist principally in the use of irrigations; these should always be at a temperature of from 20 to 30 degrees Cent., and they should be abundant. The author commences by using one pint of water containing an alkaline salt (chloride of sodium, bicarbonate of soda, chlorate of potash, twenty grammes to a pint of warmish water). Immediately after this cleansing solution he uses an antiseptic irrigation, taking care to vary from time to time the antiseptic employed. The following may be used at the commencement:—

R.—Phenic acid	20 grammes.
Glycerine (pure)	100 "
Alcohol at 90 deg.	50 "
Water	350 "

A teaspoonful to half a pint of tepid water.

After the phenic acid has caused the disappearance of the odorous symptoms, which generally takes from one to two weeks, we replace it either by chloral, resorcin, salicylic acid, salicylate of soda, or creoline. As the last-named drug has the inconvenience of being very caustic, for the reason that it forms an emulsion and not a solution, we should administer it only in small doses.

R.—Creoline	1 gramme.
Alcohol (pure)	120 "
One teaspoonful to a pint of tepid water.	

Naphthol gives equally good results, but preferably in a camphorated solution. Alumina aceto-tartaricum has also been used:—

R.—Alum. acet.-tart.	20 to 40 grammes.
Acid. boric.....	50 to 100 "
One teaspoonful to one-half, or to one, pint of water.	

The liquor Van Swieten should not be used, as it is dangerous. In obstinate cases the treatment should be terminated with pulverizations.

R.—Acid. phenic ..	2 grammes.
Crys. resorcin	3 "
Pure glycerine	50 "
Water.....	300 "

After some time the author replaces this antiseptic liquid by more astringent solutions: tannin, boric acid, alum, or an antiseptic vinegar, and when the mucous membrane is too dry, he uses the following solution:—

R.—Salol	5 grammes.
Vaseline.....	150 „

Fumigations and swabbings give equally good results. The following solutions, heated, should be employed for one or two minutes after the irrigation:—

R.—Camphor	8 grammes.
Tincture of iodine	10 „
Iodide of potassium.....	2 „
Tar.....	12 „
Alcohol at 90 deg.	100 „
Water.....	250 „

R. Norris Wolfenden.

Delavan, Bryson.—*Some Personal Observations upon the Acute and Chronic Enlargements of the Adenoid Tissue at the Vault of the Pharynx and the means used for their relief.* “The New York Medical Journal,” October 12, 1889.

WHILST admitting that usually adenoids make their appearance during childhood, and atrophy in adult life, the author mentions cases in which the enlargement of Luschka's tonsil has persisted through the middle life and others in which the hypertrophy apparently has begun after puberty, especially in women of stout figure, who suffer from attacks of catarrh of the upper air passages and dyspepsia, and with or without concurrent disease of the faucial tonsils.

Singers are especially liable to this trouble, and on examination the pharyngeal tonsil is seen to be enlarged, congested, and bathed in mucus, and it is capable of impairing hearing by pressure on the Eustachian prominence.

The writer then alludes to a case in which there was alternate enlargement and subsidence of Luschka's tonsil analogous to that of the faucial tonsil, under the influence of coryza, this observation, he believes, and we agree with him, is quite original and evidently very important.

Two kinds of adenoid growth are described,—one soft, friable, and papillomatous; the other, firm, fibrous, and smooth; the latter being very difficult to remove.

Attention is drawn to the fact that impeded nasal respiration from the presence of adenoids during the period of constructive activity is a constant menace to the healthy development of the osseous structures of the nose—a very instructive case illustrates this point clearly. The author rightly insists on thoroughness of removal, believing that whatever the surgeon leaves behind is capable of doing mischief. He evidently prefers the forceps to the curette or ring knife in most cases, and does not even mention scraping with the finger-nail. He advises the use of an anæsthetic in order to lessen shock, and, if possible, chooses either late spring or early summer for the operation.

B. J. Baron.

LARYNX, &c.

Grossman.—*The Respiratory Centre and its Relation to the Larynx; and the Origin of the Peripheral Laryngeal Nerves.* Gesellschaft der Aerzte in Wien Meeting, November 29, 1889.

EXPERIMENTS performed upon rabbits prove that the isolated nucleus of the vagus cannot alone produce normal respiration. The same is also true of the isolated nuclei of the facial and phrenic nerves. The laryngeal nerves have their origin in three fascicles in the medulla oblongata. Each muscle also has its isolated nervous fascicle. It was therefore possible to produce by individual irritations abductive, adductive, and constrictive movements of the larynx. *Michael.*

Knight.—*Dysphonia Spastica.* "New York Medical Journal," September 14, 1889.

THE author considers it a rare condition, having only seen four cases in seven years, and of these three were men, and one a woman, and in all the cases it is impossible to say what is the lesion. The prognosis is very unfavourable, except in such a case as Hoffman's, where removal of the hypertrophied anterior ends of the middle turbinated bones cure.

B. J. Baron.

Jelenffy.—*What is Veritable Paralysis of the Posticus (Posterior Crico-arytenoid) Muscle?* "New York Medical Journal," August 31, 1889.

THIS paper requires to be seen and read carefully in order to be understood, as it is illustrated with a number of diagrams, which materially assist us in dealing with such a subject.

The author considers the symptoms of the unilateral paralysis of the posticus to be "voice more or less hoarse, arytenoid cartilage of the affected side bent forward, its posterior surface seen extraordinarily well, its summit lying more forward than that of the sound side. The vocal cord is in the middle line, sometimes even overstepping it. The process with the vocal cord lies somewhat deeper. The vocal cord appears to be less broad, shorter, and rectilinear. The false cord is much advanced inward and rectilinear too.

In respiration, the affected vocal cord goes back only as far as the cadaveric position: the true and false vocal cords remain less broad and rectilinear. The author has never seen a case of bilateral paralysis, but thinks that the voice ought to be weaker, deeper, and monotonous if this is present.

B. J. Baron.

Wright.—*Two Cases of Laryngeal Paralysis, with a Consideration of the Points involved.* "New York Medical Journal," September 28, 1889.

THIS paper is worthy of perusal, as the writer of it quotes from no less than forty writers who have studied this abstruse subject. He also relates particulars of two cases, in one of which he considers the paralysis

to be of central origin, viz., at the spots where the nuclei of the hypoglossal vagus and other nerves are found; in the other case a cervical gland appeared to be the cause of the paralysis of one vocal cord by exerting pressure on the vagus. *B. J. Baron.*

Mackenzie, Stephen (London).—*Hysteria*. "British Medical Journal," April 27, 1889. Harveian Society of London, April 11, 1889.

A WOMAN, aged twenty-seven, was exhibited, who for about three years was the subject of peculiar spasms of the inspiratory and laryngeal muscles that gave rise to a peculiar sound. This for a time was incessant, or nearly so, and, when absent, was induced by taking food. A point of interest was the presence of a hysterogenic zone over the left elbow, pressure on which excited the attacks; lifting the arm also induced an attack. The case belonged to the category of respiratory and laryngeal spasm, which was not uncommon. It was very rebellious to treatment. By the persevering employment of faradism and artificial feeding she was temporarily relieved, but relapsed from time to time. The patient had always been a stammerer. Diarrhoea and family trouble appeared to have been predisposing causes. *Hunter Mackenzie.*

Dunn.—*Inter-arytenoidean Laryngitis*. "Journ. of Ophth., Otol., and Laryngol.," July, 1889.

By this title, the author describes three ordinary cases of laryngitis, in which there was swelling, especially of the inter-arytenoid space, and one case in which there was a fissure in this region. There is nothing special about the relation of these cases, except the admission that whatever homœopathic remedies were employed in such conditions, he has "not been able, however, to heal the fissure or ulceration without the use of direct local applications." In the three cases recorded in this paper, those consisted of astringent solutions, apparently chloride of zinc, topically applied with regularity. *Norris Wolfenden.*

Robertson.—*Tubercular Tumour of the Larynx—Tracheotomy—Recovery*. "British Medical Journal," November 16, 1889.

NOTES of the case of a woman, aged twenty-nine, with marked laryngeal and pulmonary phthisis, and in whose larynx a round, smooth swelling was noticed under the left vocal cord. Owing to suffocative attacks tracheotomy was performed. One or two doses of 20 per cent. solution of cocaine dropped into the trachea controlled the paroxysms of cough for hours. The operation was followed by improvement of nutrition, lessening of dysphagia, cough, and expectoration, the intra-laryngeal condition also improving in a marked manner. The operation of tracheotomy was performed under cocaine. *Norris Wolfenden.*

Fraenkel, E. (Hamburgh).—*Etiology of Tubercular Laryngeal Ulcers*. "Centralblatt für Klin. Med.," 1889, No. 37.

THE author believes that tubercular ulcerations in the larynx are produced by the entrance of the bacilli in the upper air passages and not as Heinze and others have held through infection of the lymphatic vessels.

Michael.

Rice.—*Some Unusual Manifestations of Tuberculosis of the Larynx.* "New York Medical Journal," August 31, 1889.

THIS paper was read before the American Laryngological Association, and unusual manifestations mentioned in the paper are as follows:—

1. In those cases where tuberculosis and syphilis co-exist, the lesions of one process mask those of the other. The syphilitic ulcerations, even when combined with a tubercular process, are frequently controlled by appropriate treatment, while the phthisical ulcers defy all efforts to heal them.

2. The typical appearances of a tubercular larynx are sometimes greatly hidden by the proliferation of two kinds of tissue—the one being ordinary granulation tissue, springing from an ulcerated surface, and the other an ordinary papillomatous growth, and existing, perhaps, as a mere coincidence, but probably occasioned by the chronic inflammatory condition of the larynx.

3. Adhesive inflammation at the anterior ends of the vocal cords may take place, but only if the cords be immovable and the tissue be generally proliferated.

4. The deposition of tubercle may be localized in one arytenoid, giving none of the typical signs, the larynx as a whole remaining perfectly normal in appearance.

B. J. Baron.

Hirschfeld (Hamburg).—*Cicatricial Laryngeal Stenoses of Syphilitic Origin.* "Inaugural Dissertation." Hamburg, 1889.

THE author gives a very careful review of the cases up to now published. He refers to the paper of Photiades, who reported twenty-four cases published from 1860-75, and completes that author's list with six more cases not referred thereto. He then gives the dates of fifteen cases published during 1875-89, and records a case himself, and under the care of Dr. Paul Heymann. The patient was thirteen years of age, and the parents and six brothers were in good health, and at no time had been syphilitic. She herself had never had any infection, and became ill two years previously. At the time the patient came under observation, she was cyanotic, dyspnoic, and very hoarse. Large ulcers were present on the nose and lips, and the tongue was thickened, infiltrated, and had a large ulcer on the surface. Ulcers also existed on the *vola manus* of the right side, and the soft palate was occupied by a very extensive ulcer. The posterior pharyngeal wall, the lower portions of the pharynx, and the epiglottis were converted into radial cicatricial masses. Instead of the larynx, only a membrane, with a slight perforation moving during phonation could be seen. In spite of negative anamnesis, the case was looked upon as specific. The author concludes with a review of the etiology, pathology, and treatment of specific stenoses.

Michael.

Solis-Cohen.—*Note on the Occasional Topical Use of Solutions of Nitrate of Silver.* "New York Medical Journal," September 14, 1889.

THIS is evidently a valuable note, as it deals with cases such as all who are doing throat work meet with—*i.e.*, people who are voice users, who have been under treatment for chronic laryngitis for some time,

during which they have much improved, but are not cured. In such cases Dr. Cohen recommends the daily use for two or three days of a solution of nitrate of silver—10 grains to the ounce—and then at longer intervals. Also, before this last obstinate stage is reached, a solution of the strength of 40 to 60 grains to the ounce applied once in two or three weeks is productive of much good.

B. J. Baron.

Schley.—*Lupus Laryngis*. "Journ. of Ophth., Otol., and Laryngol., July, 1889.

THE author relates the case of a woman, aged forty-four, in whom the skin was affected, the whole structure of the soft palate, the posterior wall of the pharynx, the naso-pharyngeal space, and the epiglottis were implicated. The right aryteno-epiglottidean fold was especially infiltrated and thickened; the left one being similarly affected, but to a lesser degree. The left ventricular band and vocal cord were also thickened and chronically congested. The patient had been suffering for twelve or fifteen years, and suffered from violent suffocative attacks. Not consenting to tracheotomy, she died eventually from asphyxia.

Norris Wolfenden.

Garré (Tübingen).—*Primary Lupus of the Introitus Laryngis, Operated upon by Pharyngotomy*. "Münchener Med. Woch.," 1889, Nos. 52 and 53.

A LADY, twenty-eight years of age, had had a warty growth of the tongue operated upon in Glarus a year previously. She now had a similar warty, indolent tumour on the back of the tongue; the glosso-epiglottic ligament was cicatricially shortened, and the epiglottis ulcerated and thickened on the free edge. On the right side an irregular infiltration of granular aspect was observed. A course of iodide of potassium being without effect, the author excised a portion of the epiglottis. Some time afterwards the infiltration and ulceration spread to the ary-epiglottic ligaments, and an ulcerated infiltration existed on the soft palate. The operation of sub-hyoid pharyngotomy was then undertaken, tracheotomy being previously performed, and the trachea being tamponned. The epiglottis and the mucous membrane of the upper part of the aditus laryngis was removed, and a cure was obtained. Histological examination proved the affection to be lupoid. The author completed his paper with a review of the literature of laryngeal lupus and pharyngotomy.

Michael.

Taylor and Wooldridge.—*A Case of Leprosy: Laryngeal Obstruction—Tracheotomy—Death, and Necropsy*. "Lancet," July 27, 1889.

THE patient was a boy, aged twenty, and appears to have first developed leprosy at the age of six, with characteristic appearances over the rest of the body; the condition of the upper air passages was as follows:—"The tongue is ulcerated at the tip, and covered at the sides and front with thick yellowish material and heaped-up epithelium; papillæ enlarged. What remains of each tonsil is covered with whitish tubercular masses. The soft palate is hyperæmic in patches and ulcerated. Uvula thick and scarred. The patient breathes through his mouth, as his nasal apertures are blocked with scabs and crusts. The breath is very foul. The epiglottis shows some loss of substance, with growth on the anterior surface. Ary-

epiglottidean fold thickened. No growth on the vocal cords, but they appear somewhat thickened. The patient's voice was normal till two days before admission, when it became as it is now, a husky whisper." Eight months after this date (Nov. 21, 1886) tracheotomy became necessary, and he died sixteen days afterwards. At the necropsy, the larynx was found to be covered by small ulcers except on the true cords, where they were absent, but these were clogged and almost fixed by secretions. The tonsils and fauces and back of the tongue were covered with ulcers. The epiglottis was shut, thickened, rolled transversely, and ulcerated. The trachea below the wound was clogged with blood-stained fibroid material; œsophagus was normal, but pale and flabby. *Norris Wolfenden.*

Bull (Buffalo).—*Papilloma of the Epiglottis and Base of the Tongue.* "Journal of Ophth., Otol., and Laryngol." July, 1889.

THE appearance of this papilloma is described as being a nodular mass about the size of an English walnut, divided into an anterior and posterior portion by a transverse sulcus, the anterior portion springing from the vallecule, between the tongue and epiglottis, the posterior one from the epiglottis, the whole anterior surface of which was covered by it. The growth was removed in two operations with the common forceps for adenoid vegetations. The author quotes a case in which Sir Morell Mackenzie operated upon an epiglottis for what he calls "papillomatous degeneration," and in which Mackenzie's treatment consisted in the "entire removal of the organ with his epiglottitome."

If we remember the case referred to rightly, the author's statements are absolutely incorrect. The disease for which the epiglottis was operated upon by Mackenzie was not "papillomatous degeneration," but epithelial cancer, for which, we presume, the author, even from his homœopathic standpoint of view, would have recommended radical removal.

Norris Wolfenden.

Leal.—*A Case of Laryngeal Tumour cured apparently by Internal Medication.* "Journ. of Ophth., Otol., and Laryngol.," October, 1889.

THE growth, grey in colour, projected from the right vocal cord and its under surface. The patient was treated with a spray of tanno-glycerine night and morning, afterwards with Lugol's solution (which appears to have been applied only once), and various curious homœopathic remedies, over a period lasting from the beginning of July, 1883, to March 25 following. On November 1 the growth was still present apparently as before. On August 28, 1885, the note made was: "Growth only noticed as a slight prominence over original site." The last note, on January 14, 1886, was: "No appearance of growth." The patient was under observation for two years and six months. The author remarks that he had been seen by several specialists, who advised immediate operation, and further says, naively, that he is "courting the criticism that such growths—"papillomata"—are uncertain in their course, and not infrequently disappear without recognized therapeutic intervention." He reports the cases "for what they are worth, merely remarking that the histories "show that the neoplasms were not coughed up, but disappeared

"gradually," and that "the results are evidence that watching and "waiting is preferable to early operation, with its risk of changing a "benign into a malignant neoplasm." Putting aside the last statement as an absurdity, the author will find few laryngologists to agree with him in the idea that this growth was cured by internal medication, or that it could have been possible with any of the marvellous homœopathic remedies that he mentions in connection with the case. The disappearance of the growth was probably nothing more than a coincidence. Two other cases he mentions casually, as to the one of which he gives no details, except that the growth had disappeared, and the third case, a small angioma, is said now to be under treatment, and improving, as to hoarseness and size of the tumour, under "causticum" (*sic*).

Norris Wolfenden.

Thost.—*Laryngo-fissure for a Laryngeal Growth.* "Hamburger Aerztlicher Verein," December, 1889.

THE author showed a man, sixty-four years of age, who had submitted to laryngo-fissure for a tumour which appeared to be papilloma. A preliminary excision of a piece of the growth had been followed by a violent inflammation and perichondritis of the larynx. Notwithstanding the microscopical diagnosis of papilloma, laryngo-fissure was performed, the tumour removed completely, and the place of origin treated thoroughly with the thermo-cautery. To the present there has been no recurrence, and the patient has a pretty good voice.

Michael.

Egidi.—*Statistics of Tracheotomies.* "Bulletino della Societa Lanci," 1889.

COMMUNICATION on this subject was made to the Academy on the 13th April, 1889, founded upon fifty-two tracheotomies, of which forty-two were performed in children for croup (thirty-one times for simple, eleven times diphtheritic). There were twenty recoveries, of which nineteen were of the thirty-one operations for simple, and only one for the eleven cases for diphtheritic croup. The author prefers the rapid operation for children.

Massèi.

MacDonald, Greville, and Symonds, Charters (London).—*Case of Total Extirpation of the Larynx for Epithelioma, with Recovery, and a Useful Voice.* "British Medical Journal," May 4, 1889. Clinical Society of London, May 4, 1889.

THE patient, a man, aged forty-one years, was exhibited to the Society. When first seen by Dr. MacDonald, on April 6, 1888, the laryngoscope revealed a large, irregularly lobulated, greyish-pink neoplasm, occupying the anterior three-fourths of the rima glottidis. On its posterior surface there was a small superficial ulceration. Examination with the probe showed an extensive attachment to the infra-glottic portion of the *right* cord; the ventricular band was quite free. Both cords moved freely, except so far as they were impeded mechanically. There was no glandular enlargement. A small portion of the growth was removed, and was found to be epitheliomatous. An external operation having been declined, the whole of the projecting neoplasm was removed with the forceps on April 24: hæmorrhage was rather profuse. Next day the voice was

completely restored ; no trace of the growth was seen, but the *left* cord was uniformly thickened, rounded, and deeply congested, its movements being perfect. A week later there was seen at the junction of the anterior with the middle third, a sharply defined silvery surface, two or three lines in diameter, flush with the mucous membrane, and minutely villous in structure. On July 30 the villous surface appeared slightly raised above the surrounding surface, which was yellowish and opaque. On September 8, the growth had taken a fresh start : an operation was again urged, but another opinion, while admitting malignancy, was adverse to operation, which was accordingly declined—until October, when Mr. Symonds was consulted, and asked to operate.

The nature and technique of the operation are fully described by Mr Symonds. On October 28, a partial laryngectomy was performed. The growth was found to be larger than was expected, and to involve the whole of the *left* vocal cord, while the anterior part of the right looked granular and swollen. Recurrence took place, and on December 22, seven weeks from the first operation, total extirpation of the larynx was successfully effected. An interesting result now is, that the patient can speak in a low, distinct, though gruff, voice, by simply sending the air upwards through an opening in the cannula, and setting in vibration some folds of the pharyngeal mucous membrane. Four months had elapsed from the date of the second operation, without indication of further recurrence.

Hunter Mackenzie.

Fowler.—*A Case of Modified Laryngectomy for Epithelioma of the Larynx—Recovery.* "American Journal of Medical Sciences," October, 1889.

A PRELIMINARY tracheotomy had been performed four days previously. The larynx being exposed, the crico-thyroid muscles were divided near their attachments, the soft part retracted, and the cricoid cartilage separated from the first ring of the trachea by a transverse incision. The stump of the trachea was drawn forward and rapidly packed with gauze. The trachea being drawn forward by a silk ligature, each wing of the thyroid was split down to the crico-thyroid membrane, about a quarter of an inch on either side of the angle of junction of the two wings. The inside of the larynx was cleared, and the soft parts behind and to the sides of the cricoid with the articulation of the latter to the inferior cornuæ of the thyroid, and its connection with the œsophagus was separated. The œsophagus was opened in the median line, and the index finger passed into the pharynx and hooked over the epiglottis, the whole being drawn forcibly downwards, so that the attachment of the thyro-hyoid membrane could be identified. This being now incised, the epiglottis was detached from the aryteno-epiglottidean folds, and the whole mass released from its remaining attachments. The stump of the trachea was repacked with dry gauze, and an œsophageal tube passed eight inches down the œsophagus, and the parts above and below the section of the gullet, as well as the neighbourhood of the feeding tube, was well packed with oxide of zinc gauze, a safety pin being passed through the œsophageal tube. Anæsthesia with nitrous oxide gas was kept up during the operation for one hour and forty minutes. Within a minute after the completion of the

dressing the patient left the table fully conscious, without the slightest symptom of shock. The separated thyroid wings were next day brought as near coaptation as possible. The œsophageal tube was removed and re-introduced on the second day, being left in for eight hours. On the eighth day, the tracheal tube was removed from the tracheotomy wound and inserted into the stump of the trachea. The cavity left by removal of the larynx contracted with marvellous rapidity. On the tenth day, the patient was allowed to attempt to swallow. On the twenty-fourth day, the œsophageal tube was removed from the wound, and henceforth passed through the mouth. On the forty-first day, a modification of Gussenbauer's artificial larynx was placed in position, the modification consisting of substituting aluminium for hard rubber or silver, and in dispensing with the cumbersome projecting ring collar, and replacing it with the flat plate and retaining button of the ordinary silver tracheotomy cannula. In August, 1889, nine months after the operation, the patient was perfectly well and without evidence of recurrence. The author believes this to be the first case reported in which the retention of the thyroid cartilages has been carried out as suggested by Solis-Cohen. "The comparatively small "gap left by the incision and removal of the diseased parts, and consequently lessened traumatism inflicted, the readiness with which the "parts filled up by the reparative process, and the firm support afforded "for the artificial larynx, together with the great advantages gained by "preserving, apparently unimpaired, at least, one of the pairs of the muscles "of deglutition, will, it is believed, lead to the adoption of this method of "operation, to the exclusion of all others, in cases in which laryngectomy "is at all applicable." It is also the first attempt to make an artificial larynx from aluminium. It is much lighter than other materials, and is free from the objection urged against silver, namely, its decomposition by the secretions.

Norris Wolfenden.

Beverley.—*A Case of Thyrotomy for Foreign Body in the Larynx.* "British Medical Journal," July 6, 1889.

THE case of a railway porter who had swallowed a threepenny piece, and was admitted to the hospital for dyspnœa. The assistant house-surgeon passed an œsophageal bougie (*sic*). The laryngoscope was then used, and the coin found to be across the vocal cords. Laryngeal forceps were employed, but owing to the oblique position it could not be grasped. Inversion and succussion were tried without avail. After repeated trials laryngotomy was performed. An attempt was made to remove the coin from below, but it did not avail. Having ascertained with the laryngoscope that the coin was still in its original position, thyrotomy was then performed. When the larynx was exposed fully no coin could be seen or felt, and it had evidently passed backwards (the patient being supine and under chloroform) into the gullet. The ninth day after operation the coin was passed *per anum*. After the union of the thyroid cartilages the vocal cords were found not to meet anteriorly, the patient remaining hoarse.

A second case is mentioned in which a man swallowed a sixpence, and continued at his work without any inconvenience except occasional

spasmodic cough and pain in the throat, until ten months afterwards when he coughed it up. This man was not operated upon at all.

Norris Wolfenden.

Massei.—*Foreign Bodies in the Air Passages.* "Archivii Italiani di Laryngologia," 1889.

ELEVEN cases were reported by the author to the Royal Academy of Medicine and Surgery, in Naples, and three to the last Laryngological Congress, in Paris. Attention is drawn by the author to the fact that a foreign body may penetrate into the windpipe without any sign, and even without the knowledge of the patient, even though he be an adult and with perfect presence of mind. Secondly, movable bodies may produce symptoms of suffocation, and the necessity of tracheotomy may be recognized, even when there is no immediate danger. Laryngoscopic examination is, of course, most serviceable, but fails in some cases to discover the true cause, as for instance, when the foreign body is situated under the vocal cords, and keep them in the phonatory position, and in an infiltrated condition. In those cases, the necessity for differential diagnosis from syphilis and tuberculosis may arise. *Massei.*

Moure.—*Contribution to the Study of Foreign Bodies in the Air Passages.* Reprint. Paris, 1889.

IN this paper, presented to the "Société de Médecine et de Chirurgie de Bordeaux," the author presents the notes of six cases of foreign bodies in the air passages amongst which spontaneous expulsion occurred once, three times the bodies were extracted after surgical intervention, and twice death occurred. No astonishment can be felt at the prolonged sojourn of different foreign bodies in the air passages, for it is known that under certain conditions they may become fixed in some part of the aerial passages, and may remain there for years without determining any kind of accident. Thus, Mondière relates a case in which a piece of bone remained for six years in a bronchus without causing any trouble; and Hayfelder relates cases where foreign bodies have remained in the air passages for ten and eleven years. Bodies, such as haricots, which swell up under the influence of moisture are, beyond all, those which are the least well supported. As a general rule, however, foreign bodies in these passages lead to local irritations, ending, sooner or later, by death from suffocation or pulmonary complications. The diagnosis is almost always at first obscure. There is the history of a foreign body in the mouth, its disappearance and sudden suffocation, with repeated attacks of asphyxia. There are variable intervals of calm. The voice is altered only if the foreign body be situated about the vocal ends. There is raucous and convulsive cough, with suffocation and expulsion of thready, aerated, and, in some cases, sanguinolent mucus. It is during the coughing efforts that the well-known "bruit de drapeau" or "de soupe" is perceived when the body is movable in the trachea. Auscultation and laryngoscopic examination help to locate the position of the body. The finger should on no pretence be introduced into the larynx. If the body is situated in the bronchi, there will be absence or diminution of the vesicular murmur of the corresponding side, together with the existence of bronchial lesions

or caseous pneumonia. As to treatment:—emetics produce more harm than good, favouring the deeper penetration of the object, impaction in the larynx, or sudden suffocation. Hard and heavy bodies may be displaced by inversion, especially under chloroform, to relax glottic spasm. No attempts at removal should be done with forceps blindly, the gravest consequences often following such proceedings. If it is decided to open the larynx (thyrotomy, etc.), previous tracheotomy is preferable. If the body is situated in the trachea or bronchi deep tracheotomy is necessary, proceeding slowly and exposing a large part of the trachea. If the body is not expelled or extracted during the operation, the tracheal wound should be left open, and attempts at spontaneous expulsion be excited, or the patient's body be inverted. Of course, in all cases of foreign bodies in the air passages, intervention ought to be as speedy as possible.

Norris Wolfenden.

Bryant.—*Two Cases of Partial Obstruction of a Bronchus by a Foreign Body, with Remarks on the Operation of Tracheotomy for its Removal.* "British Medical Journal," June 15, 1889.

AN account of those cases read at the Royal Medical and Chirurgical Society. The first was that of a man who, while sucking a button, fell asleep, and awoke gasping. Physical signs were not sufficiently marked to suggest the presence of a foreign body in the bronchus. He refused an operation, and left the hospital with a cough, but with no further evidence of the presence of a foreign body in the chest. Some weeks later he entered St. Saviour's Infirmary, with constant cough and profuse expectoration of fetid pus, dullness of the chest, and loud mucous râles throughout, and died in ten days from exhaustion. At the autopsy the button was found resting on the spur formed by the first bifurcation of the right bronchus, the mucous membrane being ulcerated at this spot, and the whole lung being consolidated. The second case, was that of a boy, aged seven, who had inhaled the mouthpiece of a trumpet. The physical signs of the presence of a foreign body were very uncertain. An operation was performed on the thirteenth day, and the whistle was extracted with a pair of forceps out of the left bronchus, introduced five and a half inches from the lower border of the tracheal wound. Rapid recovery followed. In both these cases physical diagnosis was obscure, but they forcibly illustrate the evil of procrastinating, or more than suggest the expediency of performing tracheotomy in all cases in which even the suspicion of a foreign body in the trachea or one of its branches found any support, from either the history of the case or the physical phenomena which might be present. Small light bodies were generally expelled by coughing after tracheotomy; small heavy bodies would tumble out on succussion. The most difficult cases were those in which the bodies were light, and stuck to the mucous membrane. Forceps were then most useful.

Norris Wolfenden.

Hall, De Havilland.—*Perichondritis of the Larynx.* "Lancet," September 28, 1889.

AT the meeting of the British Medical Association in Leeds, the following points were submitted for discussion:—1. Is there such a disease as primary laryngeal perichondritis? 2. Are there any characteristics by

which the laryngeal perichondritis of tuberculosis, of syphilis, and of cancer can be differentiated? 3. The occurrence of laryngeal perichondritis in enteric fever. 4. The causes of the dyspnoea. 5. The prognosis. 6. The treatment of laryngeal perichondritis.

Evidence in favour of the occurrence of primary laryngeal perichondritis was adduced, but the author laid stress on the difficulty of excluding the possibility of the perichondritis being of a secondary nature. In the diagnosis of the different forms of secondary perichondritis much difficulty was at times experienced. The presence of tubercle bacilli in the secretion from the larynx, pale and puffy swelling of the epiglottis and arytenoids, the occurrence of ulceration in the inter-arytenoid fold, and the existence of apical mischief in the lungs, spoke for the tubercular origin of the disease; the absence of pain, extension of ulceration from the pharynx, a history of past syphilitic manifestations, and the effect of full doses of potassium iodide were the chief points to be noted in syphilitic cases. In perichondritis of malignant origin, a thickened and infiltrated condition of the thyroid and cricoid cartilages and surrounding tissues, and the occurrence of hemorrhage from the larynx, were the chief diagnostic points. Microscopic examination might be of use. The cause of the perichondritis of enteric fever was attributed to defective nutrition rather than to any specific inflammatory process. The absence of symptoms was stated to be a marked feature of typhoid perichondritis. Œdema of the larynx, immobility and median position of one or of both vocal cords, abscess, impaction of the necrosed cartilage in the glottis, collapse of the cartilaginous wall of the larynx, and, finally, in the more chronic cases, stenosis from cicatrization, were mentioned as the causes of the dyspnoea in laryngeal perichondritis. The prognosis in this disease was always a gloomy one; in the primary and limited variety, however, it was more hopeful. Of secondary perichondritis, the traumatic and syphilitic varieties were the most hopeful, though, in the latter, stenosis as the result of cicatrization, usually occurred. In cancer the occurrence of perichondritis accelerated the end by exhaustion from the profuse suppuration. Typhoid perichondritis was a very grave complication.

Functional rest and the use of ice-bags, or Leiter's coil externally and ice internally, were enjoined for the treatment of the disease at the outset. Œdema should be treated by the application of cocaine and scarification, abscesses should be opened, and necrosed cartilage should be removed by the laryngeal forceps. Early tracheotomy was advocated, and subsequent dilatation by Schroetter's method practised. Allusion was made to the plan originally suggested by Dr. Duncan Gibb of splitting the thyroid and removing dead structures. This plan has been recently advocated by Dr. Sajous, and its employment in suitable cases was recommended.

R. Norris Wolfenden.

THYROID GLAND, NECK, &c.

Symonds.—*Eight Cases of Cysts and Adenomata of the Thyroid treated by Extirpation of the Growth.* "Lancet," December 21, 1889.

Six of these cases occurred in women and two in men; one, a woman, was fifty-four years old; the others were under thirty. In one of the cases recorded the entire thyroid was removed with a tumour that lay partly beneath the sternum. The lobes were empty, and Mr. Symonds regretted that he had removed them. The operation was undertaken early in 1883, before the cachexia following removal of the whole gland was generally known, and the wide oozing surface left after removal of the growth seemed to promise hæmorrhage. In the next case there was a solid tumour behind the right lobe, causing dysphagia so complete that the patient had to be fed with a tube. The lobe and tumour were removed by an incision to one side of the median line over the growth. Some difficulty was experienced in obtaining sufficient room, and this was due to the incision being lateral. On dissecting this tumour, it was found to be encapsuled and to be situated behind, and might easily have been enucleated. Consequently, in subsequent operations Mr. Symonds decided to first search for the capsule and then enucleate. In four subsequent cases this was done, and the growths, in one case solid, in the others partly cystic, were removed without the loss of any blood, and with great facility. As a rule, at most these small vessels required ligature. In one the lobe had to be raised up before the cyst could be reached. In the remaining case the lobe was removed because it appeared to be blended with the cyst; it turned out subsequently not to be the case. All the patients recovered with primary union, and most required but one dressing subsequently to that made at the operation.

The method employed was detailed, and may be thus summarized: To make in every case, no matter where the tumour be situated, a median incision; it gave more room and left less scar, and when the deep fascia was opened the largest growth could be brought to the median line. To expose certainly and definitely the cyst or adenoma—*i.e.*, its fibrous wall—and then to dissect off the gland. If the wall be followed closely no bleeding or trouble was encountered. If the white glistening wall of a solid tumour or the bluish wall of a cystic one was not seen at once, then the edge of the gland must be sought and raised up till the capsule was seen. If a dissection were commenced outside this, severe bleeding would be encountered. In the case of a cyst, Mr. Symonds advocated opening it early, after sufficient of the wall had been exposed to secure with forceps, and dissecting back the thyroid just as in ovariectomy. By this means the operation could be performed through a smaller opening, and the resulting scar was slight. The similarity in anatomy between these cysts and adenomata and those of the breast was pointed out to explain why it was that the growths

could so easily be turned out. All the cysts contained in the wall a variable amount of gelatinous glandular material, which showed the usual veins lined by cortical or columnar epithelium, and this structure was exactly the same as in the solid forms. As to diagnosis, it was pointed out that the cases suitable for operation were those in which the growth was localized, well defined, and limited to one side. In no case were there two tumours, though multiplicity was not considered to negative operation, there being no reason why two or more localized encapsuled growths should not be extirpated at the same time. It was impossible to decide between cystic and solid forms without exploration. It was held that excision gave more speedy recovery, and was freer from danger than any other method, while the small scar resulting from injection seemed to the author to be counterbalanced by the prolonged treatment and the often severe hectic that followed. Mr. Symonds also pointed out the necessity of the strictest antiseptic precautions in these cases. He had employed the spray, except in four cases, where the wound was kept full of sublimate solution. But more particularly he called attention to the necessity of surrounding the neighbourhood of the wound with towels wrung out of lotion, and of operating with the arms of the assistant as well as the surgeon bare, and of wearing a clean linen apron or a towel pinned over the waistcoat from the neck downwards. These subsidiary precautions he considered of far more importance than the spray. He further added that in all the cases except one there were symptoms sufficiently important to demand operation. The exception was that of a lady, who requested that the growth might be removed. He deprecated operation where symptoms were absent. Two patients were exhibited: one, from whom an adeno-cystoma, measuring three inches by two inches, was removed through an incision one inch and a half long, presented only a very small scar; the other still exhibited the ocular symptoms of sympathetic paralysis, which had antedated the operation performed nearly three years ago. In the discussion which followed—

Mr. HEATH said he had treated a fair number of cases by injection, and though some of them had had afterwards a high temperature, he had not seen that great constitutional disturbance which Mr. Symonds had spoken of.

Mr. SILCOCK showed a cyst of the thyroid which he had recently removed. He was unable to delimit the cyst from the gland substance; he made, therefore, a median incision, and removed the whole lobe without the least hæmorrhage; he dissected it from the middle line, tying the vessels as he came to them. In one case after injection he had seen diffuse suppuration of the neck, and an abscess in the anterior mediastinum.

Mr. PARKER had observed a considerable diminution in the size of the thyroid after division of the isthmus.

Mr. BATTLE said that in one case he had to pack a cyst with gauze to arrest hæmorrhage.

Mr. BERRY said the common course was that when one lobe was removed the other diminished at first in size, and then afterwards re-enlarged. The hæmorrhage came mainly from the vessels along the

upper and lower borders of the isthmus. Socin, of Basle had successfully enucleated forty-seven tumours from the gland, and his results had been published in a small pamphlet by Dr. Keser.

Mr. GODLEE said that for the removal of small parts of the thyroid body he made a small incision and scooped out the contents of the gland. The only hæmorrhage came from the capsular veins, the pulp not bleeding at all. He had known of disasters from the injection of perchloride of iron.

Mr. SYMONDS, in reply, said that he had not encountered any hæmorrhagic cysts. If one kept free of the capsule, there would be but little bleeding.

R. Norris Wolfenden.

Fitzgibbon, Henry (Dublin).—*Removal of the Thyroid Gland.* "British Medical Journal," May 11, 1889. Royal Academy of Medicine in Ireland, March 29, 1889.

A PAPER was read having reference to the case of a man, aged sixty-two years, in whom a tumour of the thyroid had been growing for thirty years; for the last five months very rapidly. It had pushed the trachea and larynx upward, and to the right, so that the larynx could be felt at the angle of the jaw, and the carotid beat on the mastoid process of the temporal bone. The tumour was removed: it proved to be purely thyroid glandular structure. The two laryngeal nerves had been interfered with, with consequent aphonia. The onset of delirium on the ninth day (which yielded to full doses of opium) was by Mr. Thornley Stoker referred to removal of a gland (thyroid) which there was reason to believe had some functions in connection with the circulation of blood through the brain. Complete recovery ensued, but the aphonia persisted.

Hunter Mackenzie.

Hutchinson, P. S.—*Two Cases of Malignant Disease of the Thyroid Gland.* "British Medical Journal," July 18, 1889.

THE record of two very interesting cases which have been already recorded in this Journal.

Norris Wolfenden.

Waugh.—*Pulsating Bronchocele.* "Times and Register," October 12, 1889.

THE author presented at his clinic at the Medico-Chirurgical Hospital, a case of pulsating bronchocele. The left lobe was much larger than the right. The upper central part presented a heaving pulsation, a thrill, and a bruit heard on auscultation, which he described as typical of the signs of aneurism. They came, however, from a part of the goitrous mass, which rose upon the patient's swallowing: and there were none of the pressure symptoms of aneurism present. The lecturer stated that there was probably a dilated condition of the arteries present; probably an anastomotic aneurism of this portion of the gland. He recommended the use of iodine internally and externally, and the inunction of an ointment of biniodide of mercury in lanoline to be applied twice a week, the patient to expose the neck to the rays of the sun for an hour afterwards. The condition of the blood vessels rendered the use of coagulating injections dangerous, while removal of the tumour would probably be followed by the occurrence of myxœdema. He considered the safest treatment to be that he then prescribed.

R. Norris Wolfenden.

Abercrombie.—*Myxœdema in a Young Subject.* "Lancet," November 16, 1889.

A GIRL, aged fifteen, had developed symptoms between the ages of eight and nine. It came on after an illness, which was said to be Bright's disease, and, from being a bright child, she had become apathetic, the skin had grown coarse, and the features altered. The girl suffered a great deal from cold. She had been late in teething and walking, but otherwise had been a normal child. Her growth was stunted, the features typical of myxœdema, and the hands spade-like. *R. Norris Wolfenden.*

Paltauf (Vienna).—*The Thymus Gland and Sudden Death.* "Weiner Klin. Woch.," No. 46, 1889.

FORMERLY, hypertrophy of this gland used to be considered a frequent cause of sudden death in children, but the possibility of such an occurrence has, during the last twenty years, been often denied. The author endeavours to elucidate this question, and relates some cases of sudden death in which he has made autopsies.

1. A girl, nine years of age, died suddenly with dyspnoea. The autopsy proved the presence of a large cyst in the thyroid gland which caused lateral compression of the trachea.

2. A new-born child died a few days after birth, and a congenital parenchymatous goitre was discovered compressing the trachea.

3. A girl, seventeen years old, died suddenly from impaction of a piece of potato between the vocal cords.

4. A boy, nine years of age, died suddenly, and at the autopsy was found obstruction of the trachea by a caseous gland which had perforated a bronchus. *Michael.*

Treves, Frederick (London).—*Treatment of Scrofulous Glands.* "British Medical Journal," May 4, 1889.

THE author believes that scrofulous glands are essentially tuberculous. He was averse to any local treatment other than excision. Dr. Symes Thomson believed that, in cases of lung disease, the glands might be removed with benefit to the patient. Mr. Treves (Margate) had employed most of the older methods with absolutely no good results. He believed strongly in excision, and in the subsequent employment of pressure. He operated only when the internal organs were sound. Mr. Thornton (Margate) had seen some very bad results from poulticing. Mr. Christopher Heath had seen great improvement from the local application of the Kreuznach waters, and from the use of the waters of the Woodhall Spa. The President (Dr. Buzzard) mentioned a case of a girl with chronic tonic torticollis, which resisted treatment based upon a neuro-muscular theory of the disease. In the end a deep strumous gland suppurated, and on its healing, a cure of the torticollis resulted. He suggested that in such cases, it might be desirable to cut down and seek for an irritating strumous gland. As preventive treatment, he recommended the liberal use of milk, and adequate exposure to fresh air. *Hunter Mackenzie.*

Hulke.—*Suicide apparently began by an attempt to Cut off the Head from behind. Several Stabs on the front of the Chest—Cut Throat—Death on the seventh day.* "Lancet," June 22, 1889.

THREE deep incised wounds crossed the junction of the occiput into the nape of the neck, a similar one in front partially divided the sternomastoids, the depressors of the hyoid bone and the thyroid cartilage, the latter passing between the ventricular bands and vocal cords. On the left side of the chest two wounds penetrated the pleural cavity.

Norris Wolfenden.

Little.—*Suicide Apparently by an Attempt to Cut Off the Head from Behind.*
"Lancet," October 19, 1889.

THE case was that of a woman, aged thirty-six, who had, in 1879, been discharged, apparently cured, about a week before from Garland Asylum, where she had been an inmate about three months, with the symptoms of puerperal insanity. "About 8 a.m. on July 2, 1879, the daughter of the patient came to the author, saying that her mother had attempted to commit suicide, and on arriving at the house he met a ghastly spectacle. She had a knife in her hand, and on the back of her neck was a huge wound, which had apparently taken half her head off. It had gone through skin, muscles, ligaments, the very bone itself, and had opened into the spinal canal, but had not touched the cord. The head itself, having lost all its connections at the back, was bobbing about in a manner that would have been ludicrous had it not been so ghastly. The instrument was a blunt and rusty table knife, with which she had been peeling potatoes. Such treatment as was possible was applied, but she died on the sixth day from septicæmia. No post-mortem was obtained."

The chief interest of the case lies in the fact of the wound having undoubtedly been committed by herself, and in the very determined manner in which she had set to work apparently to decapitate herself.

R. Norris Wolfenden.

ASSOCIATION MEETINGS.

American Rhinological Association.

Seventh Annual Meeting, Chicago, October, 1889.

DR. L. B. GILLETTE, of Omaha, read a paper entitled, *Report of a Case of Brain Abscess emptying into the Naso-Pharynx*. The patient, aged twenty, farmer by occupation, strong and healthy, while working on an embankment in September last with a wheel scraper, in driving along with it loaded, it in some way become unlatched and the handle in flying up, struck him forcibly under the chin, knocking him down a sixteen-foot embankment, where he lay unconscious for thirty minutes. A week afterward he noticed that something was wrong with his eyes. About October 15th he went to work in a brick-yard, worked three days, and then complained of being nervous, and of having a slight headache. On the evening of the third day he got soaking wet in a rain, went home cold, had a chill, followed by fever. A physician was called and pronounced it malarial fever. Dr. Gillette being subsequently called to see the case found the patient suffering with intens

headache, the pain extending down between the shoulder blades, and particularly into the right arm. Both pupils were widely dilated. Temperature was 101° F.; pulse, 105. He knew he had an inflammatory condition to deal with. A day or two after his advent into the case there developed marked compression of the brain. Temperature went down to 96° ; pulse as low as 42; respirations to 9 or 10. Complete paralysis of right side and partially of left; complete loss of sensibility as well as of consciousness. He also lost the sense of sight, and remained in this condition four days without any perceptible change whatever. The patient took his food and medicine regularly. He was surprised one morning on finding that the patient had much improved. The mother told him that during the night the patient had a violent attack of coughing and showed him the character of the sputum. It was about an ounce of green, stinking pus, mixed with mucus. From this time the patient began to improve. There was an immediate return of consciousness, a quickening of the heart's action and respirations. Examinations of the throat showed that the pus came from above. No pus came out of the Eustachian orifices, and when the patient leaned forward it would come out of the anterior nares. The discharge lasted two weeks. Where it came from, or how it got through, he could not tell. His opinion favoured the ethmoidal and sphenoidal sinuses. As a result of this terrible ordeal the patient, when seen three months since, was totally blind, sense of hearing lost in right ear, has not got the use of his right arm, and his mind is not what it was. Could such results take place without some destruction of the brain-tissue proper? Could the patient have the same results from an intra-meningeal accumulation?

In the treatment Dr. Gillette used opium, quinine, mercury, cold applications to head, and cupping at the back of the neck, and the triple bromides as they were indicated. As soon as marked compression of the brain had developed he began to use eighty grains of iodide of potash each day, and kept it up for thirty days. Did this treatment have anything to do with the results?

Dr. THOMAS F. RUMBOLD, of St. Louis, read a paper entitled *Five Reasons for Failure in Treating Chronic Rhinitis*. The first is defective instrumentation. Not one of the physicians whose offices he had visited had a tongue-depressor that would not cause the patient to retch as soon as it was introduced into the mouth. The blades of all the instruments he saw were too wide to go between the teeth, and too long, being about six inches in length. These instruments were seldom used in examinations, the exceedingly defective method of drawing the tongue out with a napkin being employed instead.

2. The spray-producers used were made for watery solutions only. These physicians did not possess an instrument that could throw warm vaseline. Liquid cosmoline was found in every office. While this remedy is far superior to tannin, iodine, nitrate of silver, or any of a dozen other agents commonly found in offices, yet it is much inferior to warm vaseline.

3. The compressed air used was taken from a container of a capacity of from three to four or five gallons. Air enough was forced into this reservoir to show a pressure of from thirty to seventy pounds. The reservoir was filled by an air-pump whose barrel was made of brass; the piston was packed with leather, which is partially decomposed animal tissue, and it was lubricated with rancid oil of some kind. Ten pounds is the greatest pressure that the mucous membrane can stand without producing irritation, while by far the greater majority of patients require from six to eight pounds pressure only.

The fourth reason for failure was an anatomical one. He meant by this an error in locating the disease. Innumerable clinical observations and post-mortem examinations prove conclusively that rhinal inflammation invariably commences

on the superior and middle turbinated processes and extends in all directions in the nasal passages and into the passages connected with them, except on the floor of the nasal passages or so-called inferior meatuses. These two portions are seldom affected with inflammation.

Keeping in mind that every irritation produces inflammation, what are the indications for treatment of chronic rhinitis?

(a) The diseased secretion, which is always acrid, therefore irritating, should be removed. If morbid growths are present, as these also are irritating, they should be removed, thus removing the local sources of inflammation.

(b) The new secretion, that is, that which is to be formed upon the surfaces that have been cleansed, should be prevented from becoming acrid, thus preventing another cause of inflammation.

(c) Hygienic and sanative measures should be insisted upon. This is to prevent a continuance of the irritation to the sensory nerves that are located upon the surface of the body and mucous membrane, by colds and other irritating agents, thus removing the originating causes of the inflammation.

Dr. A. DE VILBIS, of Toledo, in opening the discussion, differed from Dr. Rumbold in that he did not believe properly tanned leather readily decomposes. Rancid oil for lubricating the air-pump is hardly ever used. Personally he used vaseline and naphthol as an application to the mucous membrane. With regard to vaseline it was used as a protector to the mucous membrane on account of its density.

Dr. O. F. MCGAHAN, of Chattanooga, heartily concurred in what Dr. Rumbold had said regarding vaseline. Where we want the surface protected nothing will better take the place of vaseline. He sometimes uses iodine in weak solutions, and has not as yet had any bad effects from it.

Dr. A. G. HOBBS, of Atlanta, used the oil of vaseline. First, for cleansing purposes, and, second, for its celerity. He can warm it much quicker than the solid vaseline. The danger and greatest objection to the douche in cleansing the nasal passages is its liability to set up middle-ear catarrh, which is sometimes produced by the post-nasal and anterior nasal douche.

Dr. JOHN NORTH, of Toledo, did not favour the use of tongue-depressors. Patients should be trained to manage their tongues without them. When he did use one it was a small wire tongue-depressor. He uses the oil of vaseline for cleansing the nasal passages, with a little alkaline spray, or even with eucalyptus, or some other antiseptic dissolved in it. High pressure the rhinologist did not want.

Dr. C. L. DREESE, of Goshen, Indiana, read a paper on *Reflex Symptoms of Rhinal Diseases with Reports of Cases*. The first case was one of heart, stomach, and lung troubles, caused by sympathy from rhinal disease. The removal of the latter affection was followed by recovery of the former. The second case was one where incontinence was a reflex symptom of chronic nasal catarrh, and was cured by treating the catarrhal trouble alone. The third was one in which epilepsy was a complication of rhinal disease.

Dr. C. H. MOORE, of Indianapolis, contributed a paper on *Ocular Reflex Symptoms in Nasal Diseases*. He had relieved a case of neurotic affection of the Eustachian tube of the left ear by spraying the nasal passages with vaseline. Hack mentions a number of cases of hemicrania and asthma cured by the galvanocaustic destruction of the hyperplasia of corpora cavernosa of the nasal cavity. Voltolini demonstrated that asthma may be relieved by the removal of nasal

polypi. A certain group of eye symptoms, such as lachrymation, photophobia, conjunctival hyperemia, are observed in a number of patients that come to the rhinologist, and yet the examination of their eyes reveals no anomaly. The vision is normal, no eye strain, conjunctivæ healthy, the puncto lacrymalia favourably placed, and the tear-ducts open. For such cases a simple eye-wash has been ordered, cold or warm applications recommended, general hygienic treatment advised, without any relief to patients. Relief of the rhinal affection in these patients was generally followed by a cure.

The cases he reported had the following symptoms in common :

1. Burning and smarting sensation of the eyelids, especially in the morning.
2. Difficulty in distinguishing an object in ordinary daylight.
3. Increased vascularity of the conjunctiva and lachrymation on exposure to the air.
4. The sound condition of the eyes and their appendages.
5. Failure of ocular and general treatment.
6. The efficiency of nasal treatment.

Dr. N. R. GORDON, of Springfield, Illinois, said his rule of proceeding with such cases is to examine the eyes for irritation or the condition of refraction, and if the latter is normal, and no other source of inflammation can be found in the eye, he examines the mucous membrane of the nasal passages, and very often the cause is to be found there.

Dr. E. R. LEWIS, of Indianapolis, said there was no doubt but that a number of such cases are being constantly referred to the rhinologist. It should be determined that there is no error of refraction requiring treatment before the rhinologist accepts the case. About one-third of his cases were sent to him by Drs. Thompson and Stillson, oculists, but not until the eye trouble had been corrected, after which he commenced to treat them for rhinal troubles. This he believed to be the logical course to pursue in such cases.

Dr. E. FLETCHER INGALS, of Chicago, related the case of a lady, which illustrates the possibilities of eye trouble being caused by nasal disease. She came to him with hypertrophic rhinitis. He proceeded to cauterize the turbinated bodies, and before she left the office she asked him if he could not do something for her eyes, that she was unable to use them more than five minutes at a time for the last three years. He referred her to an oculist that she might get relief. She did not return to his office for two weeks; on her return she said she had not been to an oculist, but that the next day after the nose had been cauterized she was able to read at night, and it did not affect her eyes.

Dr. N. R. GORDON read a paper on *Therapeutic Measures in Rhinology*. He said that after the surgical removal of hypertrophied tissue, a curative local treatment, continued at short intervals for one or two years, or even longer, is necessary. This should consist of the oil of vaseline, with a small amount of eucalyptol or something of that character. Astringents do but little, if any, good. Where the oil of vaseline fails, salt and water in proper proportions, with a small amount of Listerine, or Dobell's solution, are suitable remedies. To prevent mouth-breathing during sleep, he recommends his patients to wear a little instrument made of celluloid that fits nicely between the teeth and lips.

In atrophic catarrh, after the removal of all secretion on the surfaces, where the mucous membrane is very thin or even ulcerated, he finds the application of a solution of resorcin, one drachm to the ounce, to be exceedingly beneficial. In the most unyielding and obstinate form of nasal catarrh he uses a glycerine suppository composed of ninety-five per cent. glycerine and five per cent. stearin.

The solidified glycerine is placed so as to come in contact with the atrophied or ulcerated portion of membrane. The glycerine soon asserts its well-known affinity for water, and the result is an abundant flow of thin mucus.

Dr. C. H. VON KLEIN, of Dayton, O., read a paper entitled *Atrophy, Hypertrophy, and Deviations of the Septum*, in which he said he had examined the nasal cavities in over six hundred patients, and found not exceeding two per cent. to have an absolutely straight division of the nares. In almost every case he observed deformities of some sort, either atrophy, hypertrophy, or deviation of the septum.

The causes which are most common to deviation of the septum occur to people when they are in their babyhood. When children commence to creep and walk around, passing from chair to chair, they fall, and nine times out of ten it is on their nose. Personal observation leads him to believe that atrophy of the septum is confined to the cartilaginous portion. Hypertrophy, on the other hand, is confined to the osseous portion of the septum, and these conditions are generally caused by such injuries as may occur to any other part of the bony system. A stroke or fall on the osseous portion of the septum may produce hypertrophy.

Dr. C. F. MCGAHAN, of Chattanooga, read a paper on *The Treatment of Chronic Nasal Catarrh*, in which the author said the remedies for its treatment comprise almost the whole materia medica. Formerly it was treated principally with strong astringents—for example, strong solutions of nitrate of silver by the post-nasal syringe, sprays of tincture chloride, tannic acid, etc. Where we have polypi the first thing to do is to remove them, which can be done by the snare or the galvanic cautery. Where the polypi are located in the anterior chamber he prefers the cautery; but when they are in the posterior chamber of the nose, the snare. Acids he did not like in the treatment of hypertrophies, as it is impossible to control the exact amount of tissue they will destroy, and then the pain is always more intense than after the use of the cautery. The hypertrophy being reduced we have simply a case of chronic catarrh with moderate hypertrophy to combat.

At the outset we should spray the nasal cavity thoroughly with Dobell's solution, or the combination with Listerine, which is recommended by Leffert. Seiler's tablets are convenient and effective. He has the spray tubes of Sass, Rumbold, Davidson, and Richardson in his office, but prefers the De Vilbiss, for with one of the De Vilbiss make for aqueous fluids, and another of the same make for oils, the rhinologist can apply nebule to any part of the nasal cavity. Having cleansed the nasal cavity thoroughly we are now ready to apply our medicament. When there is moderate hypertrophy he generally used about three times a week a spray of vaseline with a combination of the iodides, or with iodine and carbolic acid. The liquid albolene, as manufactured by McKesson and Robbins, is by far the nicest vehicle he had as yet used, although it does not remain upon the tissues as long as vaseline, and when used for its protective effect the vaseline was preferable. He now uses the iodine and iodides dissolved in albolene, first as a spray, for their alterative effect, and then spray in just pure vaseline to protect the tissue from air, or any particles that may be suspended in the air. After cleansing the nasal cavity thoroughly, he usually sprays the parts with vaseline, combined with a few drops of eucalyptol or oil of gaultheria, sometimes a drop of carbolic acid to the ounce of vaseline. On account of the hydragogue effect of glycerine upon the tissues it occurred to him some time ago that in hypertrophic conditions of the nasal cavity it may be useful in drawing the water from the tissues, and thereby reducing them in size. He had often seen it advised in combination with other drugs in the different sprays, but his way of using it was similar to that of the gynecologists when they apply it on tampons for different hypertrophic conditions of the uterus. The cavity having been thoroughly

cleansed, he applies to the hypertrophic membrane a tampon, soaked in a solution of glycerine one part, water four parts, which he allows to remain in from one to four hours. As the membrane becomes accustomed to the glycerine he rapidly increases the proportion of it in the solution, until he uses equal parts of it and water. He advises plugging the anterior nares with absorbent cotton, which prevents the tampon from being expelled. He has been experimenting with this treatment for the past six months, and thinks it is of great benefit in reducing many cases of hypertrophies.

Dr. A. DE VILBIS, of Toledo, contributed an interesting paper, entitled *Surgical Treatment in Diseases of the Nose*, in which he said until recently few diseases have caused more dissatisfaction in their treatment than chronic nasal catarrh. He did not wish to be understood that in every case of nasal catarrh there is a demand for surgical interference, but in every case that demands operation a catarrhal condition of the nasal passages was usually found to exist. He had given relief from frontal headaches, mental depression, etc., by the removal of hypertrophic tissue from the middle turbinate. He believed the time was not far distant when the sphenoidal sinus, frontal sinus, post and anterior ethmoidal cells—after death—would be looked into and examined to find a special cause for certain symptoms that existed during life, and the answer found. Schwable, Axel-Key, and Retzius have demonstrated the fact that not only can the lymphatics of the nasal mucous membrane be injected from the subdural and subarachnoidal spaces, but if force be used the fluid will pass through the lymphatic canals to the surface of the nasal mucous membrane. Permanent nasal stenosis should be relieved by an operation, as it is due to either traumatism, hypertrophic tissue over turbinate bones, thickening of tissue or deflections of nasal septum, gelatinous polypi, adenoma of vault of pharynx, fibromata or sarcomatous tumours, and the only source of relief is their removal or correction of misplaced parts. Preparatory to operating he always cleanses the nasal cavities of acrid matter, and protects the cut surfaces after operation by keeping them covered with iodized or carbolized albolene or vaseline. Hemorrhage, if necessity demands it, he controls by cotton plugs. If the source of hemorrhage is well back in the nasal cavities he uses small cotton plugs, tied with a string in the form of a kite-tail, which are easy to introduce and easy to remove.

Dr. R. S. KNODE, of Omaha, contributed a paper on *The Importance of Constitutional Treatment in Rhino-Pharyngeal Inflammation*, in which he said the rhinologist oftentimes becomes discouraged, with all the means at his command, when he finds that patients do not improve as he would like them to do; but, if the history is carefully looked into, there would be found some diathetical condition at the bottom of the nasal trouble, which, if the rhinologist could relieve, would cause a subsidence of the local inflammation. This catarrhal condition frequently extends into the stomach and intestines, and from the duodenum to the ductus choledochus, in which we have the combined symptoms of gastro-intestinal catarrh, associated with jaundice, and when the nutritive system becomes implicated there is a wide range of sympathetic disturbances which invariably follow.

The principal sympathetic phenomena transmitted from this condition are sick headache, depression, melancholy, sleeplessness, hypochondria, the heart's action is often disturbed, there is sympathizing dyspnoea, and to these may be added languor, lassitude, and irritable temper.

The general principles in the treatment of such cases would be a properly restricted diet, consisting of milk, stale bread, soft boiled eggs, and well-cooked rice. If milk is not well tolerated it should be peptonized; foods containing

little starch and largely diluted with water are the best tolerated. Among the internal agents may be mentioned the alkaline carbonates, combined with purgative salines, especially where the nasal trouble is associated with disease of the stomach, which is a frequent complication in malarial districts; and in these regions no treatment is effective until we diminish the engorgements of the liver and spleen, and nothing accomplishes this so well as the use of alkaline and saline laxatives, and these may be assisted by small doses of mercurials. Carlsbad and other mineral waters have been extolled, but phosphate of soda and Rochelle salts, if perseveringly used, may take their place. General hygienic treatment in all cases must be insisted on.

Dr. E. L. SIVER, of Fort Wayne, Ind., read a paper entitled *Reflex Inflammation of the Nose and Throat*. The author reported a case of laryngitis, with aphonia, which lasted two weeks, and which, he thinks, arose from a deflected septum and posterior hypertrophy of the inferior turbinated bone.

Dr. A. G. HOBBS, of Atlanta, read a paper on *Catarrhal Neuralgia*, by which he meant to include not only the headaches and browaches that are caused by the pressure from nasal hypertrophies or foreign bodies, but all reflex pains that have for their origin pressure in the nasal cavities, whether they be located in the forehead, the temples, across the bridge of the nose, or over the cheek bones. That such reflex pains do occur, and have for their cause pressure in the nasal cavities, was known long ago. If they were only occasional, or of short duration, they might not demand so much attention, but in many cases the pains are more persistent than the neuralgias from any other cause, and they many times produce a more profound impression upon the general system, indicated by a sense of lassitude, a haggard expression, a malassimilation, and a decided loss of weight. He had no statistics bearing upon the comparative frequency of catarrhal and ocular neuralgias other than his own note-book of the last three years. In it he found fifty-four cases under the combined headings *Catarrhal Neuralgia*, *Ocular Headache*, and *Catarrhal and Ocular Neuralgia combined*; thirty-six cases occur under the first caption, fourteen cases under the second, and four cases under the third.

After recognizing the etiology of a case exhibiting these reflex pains, on account of the severity of the pain, temporary relief should be given the patient by the application of cocaine sprays, or, in the case of complete stenosis, the cotton probe saturated with cocaine first, then the sprays. The effect should then be to reduce the pressure permanently by the means that is most rapid.

If the pressure be due to a polypus, extract it; if to a deflected septum, remove the deflection; and if it be (as is most likely the case) due to an hypertrophy, reduce it with the galvano-cautery, the snare, glacial acetic acid, or chromic acid. He most frequently resorts to the latter. After the removal of the pressure, pain ceases to a great extent, if not entirely; then the more soothing treatment of vaseline sprays, in combination with cocaine, pinus canadensis, oil of terebene, or oil of eucalyptus, daily or tri-weekly, will complete the resolution.

He knew of no class of cases that apply to the rhinologist for relief in which treatment gives more prompt and satisfactory results. Indeed, when there is no mistake made in the etiology, the result is absolutely sure, if means are resorted to that are effectual in removing the pressure upon the terminal sensitive nerves that are distributed to the nasal mucous membrane.

Dr. ELY McCLELLAN, of Chicago, read a paper on *The Physiological and Therapeutic Action of Certain Drugs in the Treatment of Affections of the Upper Air Passages*.

THE ELECTION OF OFFICERS

resulted in the choice of the following :

President—Dr. A. G. Hobbs, Atlanta, Ga. ; *First Vice-President*—Dr. A. B. Thrasher, Cincinnati, O. ; *Second Vice-President*—Dr. E. R. Lewis, Indianapolis, Ind. ; *Secretary and Treasurer*—D. R. S. Knobe, Omaha, Neb. ; *Librarian*—Dr. John North, Toledo, O. ; *Member of Council*—Dr. C. H. Von Klein, Dayton, O.

Next place of meeting, Louisville, Ky., 1890, in conjunction with the Mississippi Valley Medical Association.

At the solicitation of Dr. SETH S. BISHOP, of Chicago, a committee was appointed by the President to co-operate with the United States Hay Fever Association, with reference to the investigation and treatment of hay fever, to report annually.

The Medical Record, Nov. 23, 1889.

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THE THROAT AND VOICE.

LONDON.]

MARCH.

[1890.

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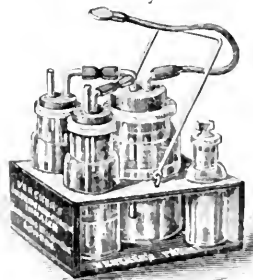
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THE
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THE NOSE AND ASTHMA.

THE appearance of a timely and interesting little volume by Schmiegelow, of Copenhagen, upon asthma in connection with intra-nasal disorders, gives us an opportunity of discussing the present position of intra-nasal surgery in relation to nervous disorders. We have passed through two phases, namely, comparative neglect and ultra enthusiasm, a period during which the nose was thought little of, except in its æsthetical and physiognomical aspects; and a modern period, when pretty nearly all the nervous ills that flesh is heir to—at least, those so-called “functional” disturbances—have been connected in some way, directly or indirectly, with the organ which was formerly thought only to subserve the sense of smell, and to be troublesome during spring and autumn.

As the functions of the nose came to be better understood, we have passed from a period of indifference to one of active enthusiasm, during which many rhinologists have come to regard the organ with feelings of veneration, if not, as Oliver Wendell Holmes said of Boston, as “the hub of the universe.” We are now in a transition state; the pendulum has swung too far in one direction, and it shows signs of falling back, possibly too much, into its former inertia. There are those who have resolutely refused to believe, all along, in “neuroses” of nasal origin, but these have surely shut their eyes to plain facts. Therapeutic nihilism is no more justifiable than injudicious enthusiasm. Epilepsy, convulsions, vertigo, chorea, asthma, goitre, exophthalmic goitre, hemicrania, hay fever, various diseased states of the eyes and ears, retarded mental development, melancholia, “irritation of the gastro-intestinal, utero-ovarian, and genito-urinary tracts,” and other conditions have been considered to be originated or connected in some way with the nose. Doubtless this is true in some cases. Many of us, however, must confess that while we have often achieved brilliant results from the intra-nasal treatment of certain of these functional disorders, we have been often subject to woeful disappointment. We have learned that the treatment of these affections, *viz* the intra-nasal cavities, must not be indiscriminate, and that it is not

necessary to gouge, chisel, saw, or burn every hypertrophy, exostosis, or intra-nasal irregularity we meet with, and that even when we feel confident that we have established a connection between the nose and asthma, epilepsy, etc., we must still be guarded in our prognosis and cautious in our treatment. This is the more necessary, inasmuch as the profession generally, at least in this country, has not accepted the intra-nasal treatment of these disorders with the enthusiasm of specialists; and the laity knowing nothing of the current of modern rhinological thought, and ignorant of "reflexes" and "functional" physiology, fails to appreciate the importance of the nasal organ as a factor in disease, accepts treatment with sceptical reserve, and regards failure with disfavour. Hence, for the credit of rhinology, too eager and enthusiastic specialism is not wise.

It is chiefly in regard to asthma that we shall confine our remarks. While, as has been shown in an interesting historical review by Dr. John Mackenzie, of Baltimore, Aurelian, Zecchius (1650), Schneider, Floyer (1726), Bree (1811), Trousseau, Follin, Duplay, and Ferber (1869), all referred to the connection of nasal disease with asthma—the credit of pointing out this connection has usually been attributed to Voltolini (in 1871). This accomplished rhinologist believed that asthma was often due to the presence of polypi, and was cured by the removal of these growths. He was careful to point out that not all persons with nasal polypi suffered from asthma, and that if the asthma had existed sufficiently long to give rise to emphysema, the removal of the polypi would not cure the asthma. Hänish (1874), Hartmann (1879), Schæffer (1879), B. Fraenkel (1874), reported cases of asthma cured by the removal of polypi. The latter regarded chronic nasal catarrh as an important etiological factor in the production of asthma through the intermediation of the trigeminus nerve. Up to 1884, Schæffer reported that he had seen seventy-four cases of asthma originating in intra-nasal conditions. Daly, in America (in 1881), and Elsberg (1883), and Sajous (1884) had called attention to the connection of reflex phenomena, especially hay asthma, with intra-nasal conditions, a position which was taken up by Roe, Jarvis, Seiler, Bosworth, and others.

The greatest impetus was given to this special line of treatment by the publication of Hack's well-known work in 1884, in which he connected a number of obscure neuroses with swelling of the cavernous membrane over the inferior turbinated bodies, and which were to be cured by the removal of these structures. The numerous errors and exaggerations into which he fell, and the many exaggerations into which his more unthinking followers have been led, do not destroy the importance of his work, or deny to him the credit of being more than any other observer the one to direct universal attention to these questions. Five years have elapsed since the publication of his book; a multitude of papers and reports has been published within that period, and if we have stripped the theories of much exaggeration, new facts have come to light, and fresh confirmation of older ideas, and we are to-day in a position to regard the connection of the nose with asthma as an established fact. This is, of course, a truism to rhinologists, but it is not so to others, and the fact still requires to be insisted upon on every occasion.

In giving due importance to the nose as a centre of local irritation, we look further, to the cerebral ganglia as of prime importance in the production of an attack of asthma. Much has been written in reference to the much-abused sympathetic system and its ganglia in connection with this subject of "reflex neuroses."

Aschenbrandt's experiments showed that the superior ganglion of the sympathetic is neither vasodilator nor trophic for the nasal mucous membrane, and that electrical stimulation of the spheno-palatine ganglion resulted in engorgement of the cavernous tissue and increased secretion, the spheno-palatine branch of the trigeminal being therefore a nerve, which, ending directly in the mucous glands, controlled secretion, and section of which resulted in dryness of the mucous membrane, and its ultimate degeneration.

Prévost found that extirpation of this ganglion was not followed by any alteration in nutrition or vascularity of the nasal mucous membrane, its sensibility remaining intact, but that galvanisation of the ganglion produced a flow of mucus in the nostril of the same side and increase of temperature, these phenomena not being produced by excitation of the superior end of the cervical sympathetic nerve. Bernard also showed that tearing away the spheno-palatine ganglia caused a serous flow like coryza. He also found the sensibility of the nasal mucous membrane persist after section of naso-palatine branches of Meckel's ganglion.

Experiments such as these, of course, only show that the nerve fibres connected with these ganglia are concerned in the function of secretion, and perhaps of nutrition, of the nasal mucous membrane. So far as these ganglia being centres of reflex action, there is no proof of such, and it is contrary to physiological teaching to suppose the isolated ganglia of the body to possess any such functions. That the branches of the trigeminal nerve are the controlling nerves of the nose, through which impulses must reach the lower cerebral ganglia, is, of course, common knowledge. How these irritations come in some cases to originate asthma is not so clear. The majority of writers agree in considering asthma to be a cramp of the bronchial muscles, brought about through irritation of the pneumo-gastric nerves, but it is important to remember that various experimenters have failed to cause artificial asthma in animals subjected to mechanical, chemical, electrical, and thermic irritation of the intra-nasal cavities.

Roy and Graham, in communicating some interesting experiments to the Physiological Society in 1885, stated that they had found that, while section of one vagus caused expansion of the bronchi of the corresponding lung, stimulation of its cut peripheral end caused a powerful contraction of the bronchi of both lungs, and stimulation of its central end caused a less powerful contraction. Under ether, stimulation of the central end of one cut vagus caused powerful expansion of the bronchi; stimulation of the peripheral end doing the same to a lesser degree. The vagi, therefore, contain centripetal fibres which can cause both contraction and expansion. The stimulation of the uncut nerve was always less in result than that of the cut nerve. The assumption was arrived at that these are two centres in the cerebro-spinal tissue which can influence the bronchi reflexly or by

direct stimulation of these centres. Asphyxia produced by stopping the respirations usually caused contraction of the bronchi, but under ether it caused expansion. After section of both vagi no effect was produced upon the calibre of the bronchi by asphyxia. Stimulation of the central end of a sensory nerve, other than the vagus of the stomach, pleura, tracheal mucous membrane, intestine, nostrils, etc., produced little or no effect upon the calibre of the bronchi. In the dog, the only connection between the cerebro-spinal centres and the bronchi is through the vagus, as shown by section of both vagi, when stimulation of their central ends in the neck produced no effects upon the bronchi.

Why stimulation of the nasal cavities in its normal condition has failed with most observers to cause artificial asthma may well be, as Schmiegelow points out, due to "a want of predisposition in the central nervous system of the animals experimented upon, so that the irritations of the mucous membrane were too slight to call forth the cramp of the respiratory muscles which causes asthma."

The cerebral centres may be thrown into excitation not only by the trigeminal nasal fibres, but by stimulation of the olfactory nerve endings, a fact which was well known to older writers, who have cited asthmatic phenomena produced by odours of certain plants (violets, roses), and by ipecacuanha, etc. Some of these effects may be of psychical origin, as in those cases in which an asthmatic phenomenon has been excited by the mere presence of a noxious animal (cat asthma, etc.). Gourewitz and Luschinger showed experimentally that asthmatic attacks might be produced by stimulation of the olfactory nerve, after section of the trigeminus and superior laryngeal nerves.

As to the exact regions of the interior of the nose whence the irritations start, various spots have been localised. While some observers have found irritative zones on the anterior ends of the middle and inferior turbinated bodies, and on the opposite part of the septum, others have found them (John N. Mackenzie) on the posterior part of the turbinated bodies and the contiguous portion of the septum. The exact localization of these irritative spots probably varies considerably in different patients, and is in no two cases exactly alike. All that may definitely be said is that wherever the nasal branches of the trigeminus spread out in the nasal cavities, there will be found spots, irritation of which produces a reflex, and in certain cases where the resistance of the medullary ganglia is lowered, or their excitability increased, there results, instead of an ordinary simple reflex of the respiratory centre such as sneezing, an overflow of nervous force, which passes down the vagus nerves to the bronchi, perhaps down the phrenics to the diaphragm, and possibly overflows to the vasomotor nervous cells in relation with these parts. What is very certain, and admitted clinically, is that there must be some abnormal state of excitability of the basal ganglia, which is vaguely understood under the terms neurasthenic or neurotic. How the irritation is started in the nose is thought by many rhinologists to be through congestion or swelling of the cavernous tissue of the turbinateds; but in view of physiological experiment, it does not seem necessary to invoke this factor as of

etiological moment, and the cavernous swelling may be just as much a sequence as a cause of the trigeminal irritation. We also see a good many patients who exhibit undoubted reflex actions, which we may regard as nasal in origin, who do not show any marked pathological changes in the nasal cavities.

It is as great an error to look upon all asthma as of intra-nasal origin, as to deny that asthma can arise in this way, to assert that rhino-surgical treatment alone is sufficient, as to decry the benefit of it. Granting, as all thoughtful observers now do, that asthma is a disorder of the central nervous system, and that the nose, when it becomes a possible factor in the production of this disorder, does so only secondarily and through interaction upon already physiologically altered nervous centres, it becomes possible to seek for limitations in rhino-surgical treatment, and to lay down rules derived from experience, when to interfere and when not, with the nasal cavities. Schmiegelow lays down some good rules with regard to the connection of the asthmatic phenomenon with the nose, which on the whole we have found to accord with our own experience. The connection may be assumed—(1) when the clinical picture leads to a belief that the abnormal condition of the nasal cavities is a factor in the production of the asthmatic attack, which is to be inferred when the asthmatic symptoms occur, or are aggravated with any increase in the nasal symptoms; (2) when local treatment, such as pencilling the nose with cocaine, the introduction of tampons of cocaine or menthol arrests the symptoms, or local treatment gives immediate relief; (3) when the careful treatment of peripheral irritation, due to a chronic nasal catarrh, definitely arrests the asthmatic attack. At the same time, as Schmiegelow very properly remarks, “nasal diseases may accidentally accompany cases of asthma without having any etiological connection with the asthmatic attacks.” It is best always to be very reserved in expressing anything to the patient as regards the influence and local treatment may have upon the asthmatic attacks. Where the clinical picture gives us decided belief in a causal connection between the nose and the asthmatic phenomena, “it is in these cases only when the patient himself wishes it, after he has vainly tried every other treatment, that one ought to begin the rhino-surgical treatment; but the result will probably be negative with regard to the asthma, though it may otherwise do the patient some good by curing his nose.” These remarks are eminently judicious, and our experience leads us to endorse them. Only by carefully selecting the patients upon whom rhino-surgical treatment is really likely to be of service, shall we avoid the discredit of “meddlesome surgery” and the reproach of Kurz, that in asthma one has to do with a real sufferer who is not merely an appendix to his nose.

Not until we look further ahead, from this organ to the general nervous system, shall we accomplish successful results. Underlying all these intra-nasal conditions is a physiological perversion of the nervous tissues, which demands as careful treatment as the polyps, hypertrophies, etc., which accompany it. The era of indiscriminate gouging, chiselling, sawing, snaring, and galvano-cauterising is fortunately passing away. Hasty enthusiasm is giving place to more scientific and rational ideas

but there is much yet to be learned and unlearned, and the surgeon who has the real interest of his speciality at heart can scarcely find any better subject for study and teaching, than the rational limitation of rhinosurgical treatment. While all must acknowledge the brilliant results which have followed the progress of modern rhinology, it is quite open to some one to produce an instructive essay upon the abuse of the galvanocautery, snare, saw, etc.

THE TREATMENT OF ŒSOPHAGEAL STRICTURE.

DR. A. FORT, of Paris, claims great success from the treatment of fibrous stricture of the œsophagus by the combined method of linear electrolysis and dilatation. On the 12th March, 1889, M. Dujardin-Beaumetz presented to the Academy of Medicine in Paris a patient with this condition, cured by Fort within three weeks. At the commencement of the treatment he had only been able to swallow some drops of soup, but three weeks after could take every kind of food, and the œsophageal opening, which formerly measured only 5 millimètres, was enlarged to admit a bougie of 12 millimètres diameter. Since that time Fort has treated nineteen œsophageal strictures, eleven of which were organic, and eight fibrous. After treatment varying from nine to thirty days, seven of the patients with fibrous stricture could be considered cured, and allowed the passage of bougies of 18, 19, and 20 millimètres. All at the end of the treatment could swallow all kinds of food. In the cases of organic stricture the treatment has, of course, not been curative, but has ended in relief, permitting alimentation, and prolongation of life. Instead of applying the treatment in one sitting, as in the case of urethral electrolysis, Dr. Fort counsels its employment in several sittings, on account of the possibility of accidents arising from the thinness of the œsophageal walls, and also that patients do not support the instrument for a longer period than three minutes, which, however, allows of subsequent dilatation.

The instrument to be used consists of an œsophageal sound traversed by a metallic conductor, ending with a platinum plate at the extremity. This should be introduced without force, being simply glided to the point of constriction. This sound is attached to the continuous current negative pole, the positive pole being applied to the thorax in front of the stricture. The number of milliampères should be indicated by a galvanometer, and the arterial pulsations should be counted. The situation of the stricture should be previously ascertained, as a guide to the length of the instrument required. Twelve cells of a Chardin pile are employed, giving a strength of from 15 to 30 volts (milliampères) according to the subject. No pain is experienced during the operation. After 30 to 150 seconds, when the instrument can no longer be borne, the current is interrupted, and the sound carefully withdrawn. After a few minutes' rest, a bougie is introduced, of diameter a little greater by some millimètres than the stricture.

Three or four operations are performed thus: at two to five days interval, and after three or four sittings, it becomes possible to introduce bougies of 19 to 20 milliamperes diameter, on each occasion taking care not to electrolyse portions of the stricture already operated upon previously. Proceeding thus, for a stricture of 5 millimètres diameter, at the first sitting a platinum plate of 10 millimètres in height may be employed, and an œsophageal bougie be subsequently introduced of 12 millimètres diameter; at the second sitting, the platinum plate may be 14 millimètres in height, and the œsophageal bougie 15 millimètres in diameter; and at the third, a platinum plate of 16 millimètres in height, and a bougie of 19 millimètres diameter.

No accident, hæmorrhage, lesion of the walls of the œsophagus, etc., has followed these operations. This method, which has been attended with such good results in the hands of the originator—results which have been witnessed by independent practitioners—certainly seems worthy of most attentive and thorough trial. If we have, in this method, as the author's published results would lead us to believe, a mode of dealing more or less successfully with œsophageal strictures, we cannot fail to appreciate the importance of Dr. Fort's work. Our methods of dealing with this formidable disease are so very unsatisfactory, that Dr. Fort's treatment by linear electrolysis and dilatation combined, is to be welcomed as a very important therapeutical step, and we can only hope that further experiment will endorse the favourable conclusions arrived at by the originator.

THERAPEUTICS AND DIPHTHERIA.

Ehnbom (Stockholm).—*Fatal Poisoning of Chlorate of Potash from Syringing the Throat with a 2 per Cent. Solution.* "Svenska Lækare Sælskaps Föerhandlingar," May 21, 1889.

A GIRL, aged five, with diphtheritic scarlet fever, was taken to the Catharine Hospital in Stockholm, and the pharynx cleaned four or five times daily with a 2 per cent. solution of chlorate of potash by means of a syringe. Marked symptoms of poisoning by the drug began to appear on the seventh day after the admission of the patient to the hospital; on the eighth day the administration of the drug was discontinued, but the symptoms of poisoning continued, and death occurred on the tenth day. The *post-mortem* examination showed decided signs of poisoning by chlorate of potash. The nurse, who had applied the injections, had never noticed the child swallowing any of the solution. *Holger Mygind.*

Browne, Lennox (London).—*The Cocaine Habit in Diseases of the Throat and Nose.* "Brit. Med. Jour.," June 1, 1889.

THE author again directs attention to the injurious local effects of persistent application of cocaine to the naso-pharyngeal and laryngeal mucous

membrane. "The drug loses even its analgesic action after long use. Similarly, while in the first instance promoting salivary and mucous secretion, it is later found that patients who long indulge in cocaine applications suffer from abnormal dryness of the throat. Further, its good effect in temporarily relieving capillary engorgement of the turbinated bones, etc., results, if its use is unduly prolonged, in either an anaemia with atrophy, or a no less inconvenient increase in the intensity and chronicity of the hyperaemia. I have seen two cases in which, I believe, anosmia to have been induced, or at least aggravated, from the habit. Needless to add that the amount of cocaine absorbed into the system has an injurious general effect on the health in the shape of a debilitated vaso-motor system."

Hunter Mackenzie.

Fowler, Walter (London).—*Poisoning by Chromic Acid.* "Brit. Med. Jour.," May 18, 1889.

SOME chromic acid, with just enough water to liquefy it, had been applied by means of a cotton-wool brush to the lingual tonsil of a woman, who, refusing to expectorate, swallowed a drop or two of it with the saliva. "A slight burning of the throat was alone complained of at the time, but in about half an hour she experienced a violent pain in the epigastrium, with severe and agonising vomiting of a green, ropy fluid. She became collapsed, with a pale and anxious face, cold extremities, a scarcely perceptible pulse, and a sense of impending death. The pupils were slightly contracted; there was slight deafness, and she said she could not hear herself speak." Under stimulants and the application of hot bottles she recovered in about two hours.

The author refers to a similar case reported by Tisné ("Jour. de Méd. de Paris," 1887).

Hunter Mackenzie.

Bruer, David (Netley).—*Observations on Malta Fever.* "Brit. Med. Jour.," May 18, 1889.

THIS is an endemic disease of long duration, characterised by fever of a continuous, remittent, and intermittent type, and with the almost invariable occurrence of relapses. The following are the symptoms pertaining to the respiratory system:—"Epistaxis occurs in about one-sixth of the cases. Cough at one time or another almost always occurs, and is marked in one-half the cases. Expectoration is sometimes profuse, and is often streaked with blood. Even when there is no cough the breathing is found to be unsatisfactory, and on auscultation sounds harsh and bronchitic. Not uncommonly slight touches of pleurisy are experienced in the severe and protracted cases. Dyspnoea was noted in one case, and on examination no grave condition was found to account for it. Pneumonic consolidation is rare, not occurring in more than two per cent. of cases."

Hunter Mackenzie.

Staveley.—*Eleven Cases of Intubation in Young Children.* "Lancet," November 16, 1889.

THE details of eleven cases are given, O'Dwyer's instruments being used, and tracheotomy being resorted to in those cases in which it was

thought that an open wound would give better relief. This was the case in three patients—large quantities of mucus obstructing the tube, and giving rise to constant and ineffectual cough. The author thinks that the tracheotomy tube gives a better chance than intubation in feeble children, when there is broncho-pneumonia present with the diphtheria. No serious difficulty in feeding was experienced, fluid food being given in all cases. After the tube had been inserted, the string was left attached in all the cases except one, the free end being secured to the left temple by strapping, and not withdrawn, as usually recommended. The hands were fastened to the side of the bed with a flannel bandage, sufficiently long to give the child freedom to play with its toys, and yet not reach the mouth.

The advantage of having the string was found in one case where the tube slipped below the vocal cords, but was readily withdrawn. The author's experience with O'Dwyer's tubes is, that should there be any membrane or collection of mucus exciting cough in a fairly vigorous child, the tube acts as a moderately tight wad, offering just sufficient resistance, that an energetic cough causes its immediate expulsion, and with it, any mucus or loose membrane that may lie below it. Complete relief, which is of very variable duration, is due to the temporary displacement of the œdema of the cords, from the pressure exerted by the tube.

A tracheotomy tube, on the other hand, cannot, when tied in, be expelled, and the removal of the inner tube is frequently quite insufficient to enable the child to rid itself of the cause of the obstruction, and a skilled nurse or medical officer, should be within call. The amount of practice required to intubate, fairly rapidly, cannot be compared with that required for tracheotomy. Two assistants are essential in intubation, one to hold the child, and another to steady the head and control the gag. Too much stress cannot be put on the importance of keeping the patient's body and head held fair and square before the operator. The results obtained by the author in the eleven cases mentioned, and in five others subsequently intubated, were, seven recoveries and nine deaths. The average age of the fatal cases was under two years, and of those cases which recovered, five years.

R. Norris Wolfenden.

D'Espine and E. de Marignac.—*Experimental Researches upon the Diphtheria Bacillus.* "Rev. Méd. de la Suisse Romande," Jan. and Feb., 1890.

KLEBS in 1883 published experiments, in which he found two different micro-organisms in diphtheritic products. In Prague he had found micrococci, and in Zurich bacilli constantly present in diphtheritic false membranes. He concluded that there were probably two forms of diphtheria, in the one of which micrococci were present (at Prague) and in the other of which bacilli were met with (at Zurich). Lœffler found Klebs' bacillus in the deeper layers of the false membrane, and obtained pure cultures of it, demonstrating experimentally its eminently pathogenic properties. The bacillus lived and died *in situ*, being never found in the blood, or viscera, but acted upon the constitution by producing a poison. The streptococci which have been found in false membranes predominate

especially in post-scarlatinal diphtheria, and to them is due the necrobiosis of the tonsil occurring in this form of diphtheria. Contrary to the diphtheria bacillus they are found in internal organs (heart, liver, spleen, and kidneys). Their pure cultures never produced false membranes in animals, and they are therefore not pathogenic of diphtheria. The inoculation of Lœffler's bacillus upon scarified surfaces always produced false membrane identical with human diphtheria, their inoculation in cellular tissue produced vascular lesions, œdemas, hæmorrhages, etc. Lœffler, however, remarked that the bacillus had not been isolated in some typical cases of diphtheria, it had further been found in the saliva of a healthy child, and animals which survived the inoculations did not present paralytic phenomena. Later on, Lœffler demonstrated a pseudo-diphtheritic bacillus which had no pathogenic action upon animals. Hoffmann asserted that he had isolated the true diphtheria bacillus in a case of measles, and in another case of true diphtheria the isolated bacillus had all the virulent properties of Lœffler's bacillus, except its toxic powers upon animals, and in others the virulence varied. Prudden has isolated, in 22 out of 24 cases of diphtheria, a streptococcus to which he gives the name streptococcus diphtheriæ, and is disposed to identify it with streptococcus pyogenes and erysipclatis. He found it always very abundantly in false membranes and sometimes in the viscera (kidneys, liver, spleen, etc.) His experiments upon animals gave the same results as Lœffler's, *i.e.*, local inflammation, sometimes death from septicæmia, but never the production of false membranes. He never found Lœffler's bacillus in any case. Experiments by Fraenkel would tend to show that the streptococcus would produce certain inflammatory complications, such as abscess, rarely met with in diphtheria. Prudden and Northrup, in seventeen cases of diphtheritic broncho-pneumonia, have isolated and cultivated the streptococcus which have probably been the origin of the broncho-pneumonia.

Darier, Flügge, Babes, Sørensen, and d'Espine have isolated and cultivated Lœffler's bacillus. In 1888, Roux and Yersin verified Lœffler's researches, with the important addition that they were able to produce experimentally in pigeons and rabbits late paralyses, which resembled post-diphtheritic paralysis in the human subject, and they obtained solutions from their cultures which acted as chemical poisons retaining pathogenic action. In 1889, continuing their researches at the Pasteur Institute, they succeeded in producing the same paralyses in a dog, and also toxic albuminuria. In 1889, d'Espine made experiments to show the action of various antiseptics upon Lœffler's bacillus, which he demonstrated to be the specific bacillus of diphtheria. Kolisko and Paltauf also found the bacillus in fifty cases of diphtheria, and never in the pseudo-membranous sore throat of scarlatina and measles. Ortmann also isolated the bacillus in fifteen out of sixteen cases from diphtheritic false membranes, and Spronck, of Utrecht, repeated the experiments of Roux and Yersin, producing late paralyses and albuminuria from the injection of filtered cultures in the rabbit and pigeon. He also, with Wintgens and Deets, isolated the bacillus from the false membranes, in seven cases of diphtheria. Zarinko, from twenty cases of epidemic diphtheria

isolated and cultivated Loeffler's bacillus in eighteen, which in eleven cases of catarrhal origin (common catarrh, scarlatina, measles) the bacillus never occurred. In eighteen cases where examination of the apparently normal pharynx was performed, the bacteriological results were negative.

D'Espine and de Marignac isolated Loeffler's bacillus in eleven cases of diphtheria. These results were negative in four cases, of which only two exhibited the clinical aspects of diphtheria, in one of the others, of scarlatinal origin, the streptococcus was found, also in the last case of "diphtheria" of the wound after resection of a knee.

The normal diphtheria bacillus resembles the tubercle bacillus in length, and its form varies much with the age of the cultures, the medium of cultivation and method of coloration. The authors give the following method for detection of the bacillus in false membranes. A small thin piece is stretched over a cover glass, dried over a flame, and rapidly coloured with gentian blue. The bacilli appear under the form of slightly curved sausage-shaped organism, strongly coloured, and having nearly always the same length. They are most numerous in recent membranes. Gramm's method of coloration is serviceable to detect saprophytic bacilli from diphtheritic, in false membranes, the former being entirely decolorised, the latter not.

The authors formulate their conclusions as follows :—

1. The bacillus is found only in the false membrane, and never in the blood or viscera.
2. In the guinea-pig and rabbit, an œdematous enteritis, often hæmorrhagic, is generally met with, and this attains its maximum in the duodenum.
3. Subcutaneous inoculation of the diphtheria bacillus never causes fever ; on the contrary there is a lowering of temperature.
4. The glands of the region inoculated are swollen or injected.
5. The diphtheritic poison profoundly alters the composition of the blood, which becomes black from charging with CO_2 , and remains fluid after death.
6. Albuminuria in experimental poisoning is frequent, but not constant.
7. Diphtheritic paralysis, experimentally produced, is not a paralysis in the proper sense of the term, but is perhaps a general muscular enfeeblement.
8. The virulence of the authors' living cultures has never varied so long as they remained pure, were not too old, and had not been modified by light, heat, vacuum, etc. Cultures kept for fifteen months have retained all their virulence.

The authors discuss the action of light and drying, of oxygen and its deprivation, and of heat and antiseptic substances upon the bacillus of diphtheria. With regard to the latter they find that boracic acid, chlorate of potash, alum, and lime water have little destructive influence upon the bacilli, while salicylic acid $\frac{1}{1000}$, and even $\frac{1}{2000}$, citric acid and citron juice are very active in arresting the development of Loeffler's bacillus. The survivance of the bacillus in the dry state can be prevented in sick rooms by good aeration, disinfection of walls, floors, and clothing, and as

milk is a medium for extraordinary propagation of the bacillus, its use should be interdicted when coming from a house in which diphtheria has occurred.

Irrigations of salicylic acid, one to two per cent., repeated every hour or two hours, is the best local treatment. *R. Norris Wolfenden.*

Thoresen (Norway).—*The Relation of Diphtheria to the Soil.* "Norsk Magazin for Laegev.," May and June, 1889.

ON account of Dr. Schon's statement reported below, Dr. Thoresen gives his experiences, based upon the observation of about 600 cases, and comes to the conclusion that there were far more cases in houses built upon sand or gravel. He, however, thinks that the soil has very little importance as regards diphtheria, except inasmuch as people living in houses with bad drains, etc., become weakened, and consequently more susceptible to infection. He considers want of cleanliness the most important factor. Amongst these 600 cases, he never saw the infection occur twice in the same patient. Incubation was always very short, and sometimes even only a few hours. *Holger Mygind.*

Schon, C. (Norway).—*Experience of Diphtheria.* "Norsk Magazin for Laegev." Jan., 1889.

ACCORDING to the author's experience in Norway (where diphtheria for some time has been very prevalent), the inhabitants of houses built upon sandy soil are less exposed to the disease, even if they do not pay much attention to cleanliness. *Holger Mygind.*

Jönsberg (Norway).—*Remarks on Diphtheria.* "Norsk Magazin for Laegevidenskaben," Feb., 1890.

AN account is given of an epidemic of diphtheria, which was stopped by cleansing all the ground surrounding the houses of the district (removal of manure, etc.), and covering it with large quantities of "Brambani's disinfecting powder." *Holger Mygind.*

Dedichen (Norway).—*Diphtheria Communicated through Milk.* "Tidsskrift. for praktisk Medicin," No. 5, 1889.

A REPORT of a slight epidemic of diphtheria, in which all the persons affected had drunk milk from a place where there had been cases of diphtheria. *Holger Mygind.*

Berentsen, B. M. (Chicago).—*Remarks on Diphtheria.* "Norsk Magazin for Laegevidenskaben," Sep., 1889.

IN this article the author recommends tonsillotomy in cases of diphtheritic tonsillitis, where the general health is not too much affected, the author having, however, only treated three cases in this heroic way. He advocates local treatment of diphtheria (removal of false membranes and the use of solid nitrate of silver). *Holger Mygind.*

Pearson.—*Diphtheria.* "Brit. Med. Jour.," Feb. 22, 1890. Sheffield Med. Chir. Soc.

PARTICULARS of six cases of diphtheria, under his care at the Borough

Fever Hospital last autumn, were related by the author. In three of them he performed tracheotomy. The first two cases were a brother and sister, aged respectively nine and six years; another brother had died of diphtheria at home. They had both been ill about twenty-four hours before admission. Tracheotomy was performed on the boy the following day, and was followed by great relief. With the exception of a slight hæmorrhage from the lungs five days after, and some bronchitis, the child progressed favourably up to the ninth day after the operation, when, in the act of micturating, pulmonary apoplexy occurred, and the patient died in about three minutes. The necropsy showed congestion of the base of the right lung where the hæmorrhage had taken place. In the case of the sister tracheotomy was performed on the sixth day after admission. The cannula was removed four days after operation, and the patient made a good recovery. In a third case Dr. Pearson did tracheotomy at the child's home, subsequently removing it to the fever hospital. The cannula was worn for eighteen days. There was some trouble from bronchitis, and subsequent paralysis of the palate and of some of the pharyngeal muscles, but the patient was ultimately discharged cured. The other three cases were all from one house, a mother and two children. The mother's case was hopeless from the first, and she died six days after admission, the *post-mortem* examination showing extension of the membrane into the smaller bronchi and catarrhal pneumonia. Neither the son nor daughter, aged nine and fifteen respectively, had any very urgent symptoms, and both were discharged cured. In four out of these six cases albuminuria was present, paralytic phenomena in three out of the four who recovered. The general treatment was stimulating—champagne and brandy freely.

R. Norris Wolfenden.

Rondot. — *Treatment of Diphtheria by Bichloride of Mercury.* "Gaz. des Sciences Médicales de Bordeaux," May, 1889.

THE author prefers solutions of sublimate, 1 in 500, to which he adds 5 grammes in 1000 of tartaric acid. His primary object in treatment is to act upon the parts covered with exudation, avoiding the production of excoriations of the mucous membrane, which favour the penetration of pathogenic microbes into the blood. Internally, Rondot gives 4 to 6 milligrammes of bichloride of mercury daily. Under this treatment the author, without including cases of simple diphtheria, has had 10 cures in 29 patients tracheotomised, although his patients were placed under most unfavourable surroundings.

Joal.

MOUTH, TONGUE, PHARYNX, AND ŒSOPHAGUS.

Ferrier, David (London).—*Relations of Fifth Cranial Nerve*. "Brit. Med. Jour.," June 15, 1889. Odontological Society of Great Britain, June 3, 1889.

THE author first discussed the morphology of this nerve, and pointed out that the nerves of the medulla proper, except the hypoglossal, were all splanchnic nerves, and the fifth nerve was the afferent somatic nerve of this region. The fifth nerve thus possessed wide-spread relationship, not only with the cranial, but also with the visceral regions. This, no doubt, was the source of many reflex or sympathetic neuralgias of the fifth. The motor innervation of the soft palate was next discussed, and it was shown, both experimentally and clinically, that neither the fifth nor the seventh were concerned in this, but that the motor innervation of the palate was derived from the spinal accessory—a splanchnic nerve proper. As to the question of the path of the gustatory nerve of the tongue in its anterior two-thirds, several facts were mentioned, showing that these passed directly in the lingual division of the fifth. The chorda tympani nerve was probably a secretory nerve and vaso-dilator of the tongue. He explained the occurrence of loss of taste, with peripheral facial paralysis, by simultaneous implication of the fifth and seventh nerves, an association of very common occurrence. So far as taste was a somatic function related to the movements of the tongue, it was subserved by the fifth; so far as it was a splanchnic function related to deglutition, it was subserved by the glosso-pharyngeal.

Hunter Mackenzie.

Parry, R. (Carnarvon).—*Another Case of Salivary Calculus—Removal*. "Brit. Med. Jour.," May 18, 1889.

THE calculus was lying in a pouch formed by a dilatation of Wharton's duct; this was slit open, and the stone scooped out. The swelling had existed for over five years.

Hunter Mackenzie.

Baker, A. W. W. (Dublin).—*Polypus of the Gum*. "Brit. Med. Jour.," June 29, 1889.

POLYPI of the gums had a papillomatous structure, and were found in the neighbourhood of decayed teeth. They varied in size from a pea to a horse-chestnut. A discussion followed the reading of the paper before the Academy of Medicine in Ireland, August 24, 1889.

Hunter Mackenzie.

MacLeod, D. (Kilmarnock).—*Case of Cancerum Oris*. "Brit. Med. Jour.," June 29, 1889. Glasgow and West of Scotland Branch, B.M.A., June 13, 1889.

EXHIBITION of case. The disease occurred during an attack of typhoid fever, and the diagnosis had been materially aided by Ehrlick's diagnostic urinary sign of typhoid fever.

Hunter Mackenzie.

Barling.—*Syphilitic Chancre of Lip.* "Brit. Med. Jour.," Feb. 22, 1890. Birmingham and Mid. Counties Branch Brit. and Med. Ass.

THE author showed a man, aged twenty-six, with a syphilitic chancre on the lower lip, of which it occupied nearly the whole length. The surface of the chancre was excoriated and its base extensively indurated. The submaxillary glands on each side were much enlarged, and there was a roseolous rash on the skin of the chest and abdomen. The sore had commenced six weeks before, and was probably due to the indiscriminate use of other people's pipes in smoking. *R. Norris Wolfenden.*

Buckell, W. R. (Cheltenham).—*Vaccine Vesicle on Tongue.* "Brit. Med. Jour.," June 22, 1889.

A WOMAN, on 5th April, ran a fish-bone into her tongue, which remained sore for some time. Two days subsequently her baby was vaccinated. The baby's arm was kissed by the mother when matter was taken from the vesicles, and six days subsequently the swelling was first noticed. It was then about the size of a hazel-nut, on the dorsum of the tongue, about half way back, and a little to the right of the middle line. In due course it disappeared. *Hunter Mackenzie.*

Gray.—*Lupus of Mouth.* "Lancet," Jan. 4, 1890. Nottingham Med. Chir. Soc.

THE author showed a case of this kind. The disease involved the right side of the hard palate, extending backwards to the uvula, which was affected at its base. It had been present for four years, as evidenced by soreness and spitting of blood, but he never showed it to a doctor till about twelve months ago. He had two patches of well-marked lupus on the left side of his neck; one healed, the other exedent in variety, but not extending much. An enlarged gland existed under the jaw on the right side. No history of syphilis. No treatment had been used so far, as he had only been under observation a few days. Scraping and caustics or the actual cautery were the means generally recommended in this form. *R. Norris Wolfenden.*

Gray.—*Parotid Tumour.* "Lancet," Jan. 4, 1890. Nottingham Med. Chir. Soc.

THE tumour had been noticed for two years and a half. When first observed it was the size of a pea; now it was the size of a large walnut, lobulated, freely movable on deep structures, the skin not fixed to it, and not fluctuating. He was admitted into the Nottingham General Hospital for acute orchitis following, as is so frequently the case, the stoppage of a gonorrhœal discharge. The parotid tumour was not apparently affected by inflammation of the testicle. From its position it lent support to the view that these tumours generally grow from the lymphatic gland situated over the parotid, rather than from the gland itself. *R. Norris Wolfenden.*

Fowler, W.—*Papilloma of Uvula.* "Brit. Med. Jour.," Dec. 11, 1889. Hunterian Soc.

THE author showed a uvula which was entirely covered by a papillomatous

growth. It was removed from a young woman, and had given rise to no symptoms. He remarked that although papillomata were not uncommon as small growths situated on the tip and sides of the uvula, the one he showed was sufficiently curious to merit attention, as the whole of the uvula was replaced by a papillomatous growth. *R. Norris Wolfenden.*

Garrison (New York).—*The Galvano-cautery for the Treatment of Hypertrophy of the Tonsils in Children and Adults, with cases.* "Jour. of Ophthal., Otol., and Laryngol.," Jan., 1890.

FIVE to six punctures are made at each sitting into one tonsil, and this is repeated by the author every fifth or sixth day. While there is marked recession after the first sitting, from six to ten applications have usually to be made to accomplish good results. *R. Norris Wolfenden.*

Mackenzie, J. N.—*Some Remarks on Anomalies of the Uvula with Special Reference to Double Uvula.* "The Johns Hopkins Hospital Reports," Vol. II., No. 1., Jan., 1890.

THE uvula may be very elongated, and it has been found to protrude from the mouth. It is often truncated or bifid. Sometimes it is congenitally absent. Double uvula is often met with, as two separate uvulae hanging apart on either side of the median line of the palate, or where there is no central uvula, but two lateral ones, projecting from the soft palate at or in the neighbourhood of the junction of the anterior and posterior faucial pillars and directly over the tonsils, or where there is one well-formed lateral uvula, the other one being merely rudimentary, or where these two central uvulae joined only at their insertion into the palate, or when two central uvulae are joined only at their insertion into a sort of hemispherical bulging downward of the central portion of the soft palate. In addition to these forms, the author has met with one anomaly where a well-formed truncated uvula was embedded in the palate and covered with its mucous membrane. From the upper border of the base on each side commenced the anterior palatine pillar, and from its lower border the posterior pillar. The author explains these anomalies upon embryological grounds. The importance of the uvula in song and speech is well recognised, and malformations affect the timbre of the voice, and to a still greater degree modify it. The author protests against the favourite and indiscriminate practice of amputating the uvula. The author's interesting paper is accompanied with illustrations. *R. Norris Wolfenden.*

Range.—*Cysts of the Pharynx.* "Lyon Médical," May, 1889.

THESE cysts rarely exceed the volume of a cherry in size, they occur frequently, but are not easy to see, since the tumours are sessile, situated under the mucous membrane, and in a region very inaccessible. The symptoms are those of chronic pharyngitis, but the cysts may determine reflexes, such as asthma, neuralgias, migraine, etc. As to their pathology, Rangé does not share the views of Ganghofner and Schwabach, who regard them as arising in the bursa of Luschka. According to the author, they develop in the crypts and clefts, which are the vestiges of clefts segmenting the pharyngeal tonsil in early life. Other cysts form in the

glands from obstruction of the excretory canal, and some develop in adenoid tissue by a kind of rarefaction of the agglomerated lymphatic corpuscles. *Joal.*

Nichols, J. E.—*A Method of Correcting Adhesions between the Soft Palate and the Pharyngeal Wall.* New York Acad. of Med., Jan. 28, 1890.

THE class of cases in question were those which presented a partial or total occlusion of the passage between the naso-pharynx and the oro-pharynx. These might be caused by abnormal adhesions of the posterior faucial pillars, the edge of the soft palate, the uvula, and the pharyngeal wall at any level. These adhesions were mainly of syphilitic formation, the lesser number being, usually, caused by some acute inflammatory disease of these parts. As a rule, they were membranous curtains, having their origin lower down than the palatal level, not of very great extent, nor very distressing to the patient. But cases were met with, of far greater extent and gravity, which did not yield to ordinary methods of treatment. These were the cases in which the adhesions were of fibrous and muscular origin, and of variable thickness, and which reached above the palatal level into the naso-pharyngeal vault. In some cases these adhesions were so broad as to almost completely close this space. The vault then presented a smooth, uniform surface, emphasized by the central opening, which might admit the play of the uvula, if that part were not involved in the process. Complete occlusion was, however, of very rare occurrence. These cases of thick, extensive adhesion were the ones that gave the most discouraging prognosis, both as to cure and palliation. In the new method to be presented, the speaker believed that the means to permanently relieve these patients had been found.

The operation proposed for getting over the difficulty was a new one only in its application to this class of deformities. In the case of congenital or acquired webbed fingers or toes, an exactly analogous condition of things existed, and one which presented the same difficulties. It was found, in the treatment of these cases, that unless a healthy cicatricial surface, of greater or less extent, could be obtained at the bottom of the web, near the junction of the fingers, permanent separation of the rest of the web could not be maintained. When this principle was carried out, success was inevitable and immediate. The first step in the operation was to thoroughly cocaineize the part. If there was complete closure, the thickness of the adhesion was ascertained by passing a curved steel bougie through the nostril into the naso-pharynx, and palpating the end of it by means of the index finger in the oro-pharynx. An incision was now made on to the end of the bougie, with a long-handled, sharp-pointed bistoury. An ordinary staphylorrhaphy needle, curved to the right or left, was armed with four or eight strands of coarse black silk. It was passed through the central opening into the naso-pharynx, and carried as far as possible directly outward away from the median line. Then, by a turn of the handle, it was brought into the oro-pharynx. The tissue being very tough, it was necessary to afford a point of resistance by a long forceps against the palate, anteriorly. One end of the suture was now grasped, the needle withdrawn, and the suture left *in situ*. The long

ends of the strand were tied with a surgeon's knot near the central opening, leaving the loop loose enough to play freely through both perforations. If the adhesion was bilateral, the same thing was done on the opposite side. The loop was then drawn around so that the knot laid in the nasopharynx above the adhesion. The suture was moved slightly from day to day, and at the end of from ten to fourteen days healing had taken place, leaving a patent cicatricial canal, through which the suture worked freely.

Traction was now made on the loop toward the median line, in order to stretch the canal. Into it was introduced a very narrow, blunt-pointed staphylorrhaphy knife, curved on the flat. The tissue between the two openings was now cut through, and the parts kept dilated by the finger or a retractor until healed. Care must be taken, in introducing the knife, not to abrade the canal, as otherwise the good effects of the operation would be nullified. There was little hæmorrhage, and the pain was not great. There was some nausea and gagging at first, which was produced by the pressure of the loop, but of this the pharynx soon became tolerant, and deglutition was but little interfered with. The chief difficulty met with was the introduction of the curved needle at the proper angle to bring the point into the pharynx without engaging part of the faucial pillars. This could be avoided by holding the handle high against the upper teeth, and bearing in mind the angle of the curve. As the operation was still unperfected, the speaker felt that it was too early to claim great things for it; but the cases on which he had operated had been so much improved, that he thought it was of value, and he hoped his experiences would be a means of inducing its further trial. The speaker then exhibited several patients upon whom he had performed this operation.

Dr. RICE said that this was the first scientific device that had been offered which, he believed, would fill all the requirements in these very obstinate cases.

R. Norris Wolfenden.

Cummins.—*Stricture of Œsophagus treated by Gastrostomy.* "Brit. Med. Jour.," Feb. 1, 1890. Cork Med. and Surg. Soc.

THE author read notes and exhibited naked eye and microscopic specimens of a case of malignant stricture of the œsophagus. The patient, aged sixty-two, suffered from cough, weakness, anæmia, and great emaciation. All food taken was immediately regurgitated, whether solid or liquid. Even the smallest bougie failed to pass the stricture. Feebleness in the respiratory sounds, with dullness over the upper part of sternum, was observed. The pulse was regular, but weak. As the man was rapidly sinking, rectal alimentation having been used vainly, to prolong life gastrostomy was performed by an incision three inches in length, parallel to the seventh, eighth, and ninth ribs, an inch from the left costal margin. The peritoneum was stitched to the sides of the wound, the stomach drawn forward and fixed by sutures passing through the serous and muscular coats to the peritoneum at the sides of the incision, the angles of which were closed by sutures. The patient was fed by means of an aspirating needle, two ounces of beef-tea being injected into the stomach. The wound was dressed with iodoform and

iodoform wool. Rectal alimentations were also continued. Next day he was again fed by the aspirating needle, milk, brandy, and beef-tea being given. Next morning an incision was made into the stomach, and an india-rubber drainage tube inserted, through which the patient was fed every two hours with milk and brandy. He gradually sank, and died fifty-two hours after operation. The growth involved the bases of both lungs, the lower third of the œsophagus, and the upper part of the cardiac end of the stomach (the mediastinal glands also being infected), and presented all the characters of scirrhus cancer. *R. Norris Wolfenden.*

Rodman, George Hook.—*Remarks upon the Treatment of Cancerous Stricture of the Œsophagus by Means of Intubation: with illustrative Cases.* "Brit. Med. Jour.," May 25, 1889.

THE author states that the results obtained compare very favourably with the treatment of similar cases by gastrostomy. In one case the tube remained *in situ* 170 days. It was expelled during a fit of coughing. The author thinks that the tube ought not to be changed too frequently, so as to avoid undue irritation and the risk of forming a false passage. He makes some practical suggestions regarding the construction of tubes.

Hunter Mackenzie.

Sheen, Alfred (Cardiff).—*Case of Stricture of the Œsophagus—Gastrostomy—Death.* "Brit. Med. Jour.," June 29, 1889.

CLINICAL record of a case. The stricture was situated nine and a half inches from the molars. The patient died on the day following that of operation. On necropsy there was found in the œsophagus a hard cancerous nodule, about the size of a small walnut, occupying the whole circumference of the tube, and through the centre of which a No. 10 gum elastic bougie could be forced. There were no enlarged glands.

Hunter Mackenzie.

Annandale.—*Retention Tubes for Constriction of the Œsophagus.* "Brit. Med. Jour.," Feb. 11, 1890. Ed. Med. Chir. Soc.

THE author demonstrated the value of retention tubes in conditions of constricted œsophagus. The patient into whose œsophagus he introduced the tube could swallow fluid with difficulty before, while after the fixation of the tube within the stricture the act of swallowing was easily performed, and the patient was dismissed to enjoy supper. Mr. Annandale mentioned that he had used the tubes with advantage in a case of malignant stricture.

R. Norris Wolfenden.

Fort.—*Treatment of Œsophageal Stricture by Linear Electrolysis combined with Dilatation.* Soc. de Méd. Pratique, Paris, 1889.

THIS treatment may be definitely curative in fibrous structures, the author having obtained cure in seven cases out of nine, in a period of from nine to thirty days. It is also palliative in organic stricture, and in eleven such cases the patient's existence has been prolonged and rendered supportable by this treatment.

Joal.

May, Bennett.—*Œsophagotomy.* "Lancet," Jan. 11, 1890. Birmingham and Mid-Counties Branch Brit. Med. Assoc.

THE author exhibited a female patient, aged twenty-two years, on whom he had successfully performed œsophagotomy for the removal of a tooth-plate carrying three teeth, which had been swallowed during sleep eleven months previously, and had remained impacted in the œsophagus above the level of the sternum. The immediate symptoms were a sense of choking and pain in the gullet, followed by violent retching and loss of voice ; but, as she recovered the power of swallowing liquids, the foreign body was thought to have passed into the stomach. It could not be felt externally, but could be detected by a metallic probang. The œsophagus was found to be thickened and adherent by inflammatory changes. It was not sutured. She was fed per rectum for the first week, and by an œsophageal tube for the second. She was then able to swallow without leakage through the wound. A large goitre which complicated the operation had since disappeared, and she was now quite well and able to swallow any kind of food.

R. Norris Wolfenden.

M'Farlane. — *Foreign Body in Œsophagus. — Œsophagotomy — Recovery.* "Canadian Practitioner," Jan., 1890.

THE case of a man, aged twenty-three, who swallowed a plate with an artificial tooth attached. Attempts to extract it with œsophageal forceps failing, œsophagotomy was undoubtedly called for as the only means of obtaining relief for the patient. There was no difficulty encountered during the operation, there were no important structures divided, and the bleeding, which was insignificant, was easily controlled. It was not thought advisable to suture the opening in the œsophagus ; the plate had been fifty-three hours in the gullet and was firmly impacted, so that probably some extent of damage had been done to the œsophageal wall, and it was consequently thought safer to leave it open.

During the subsequent history of the case, the most noteworthy point is the way in which the act of swallowing could never be completed without forcing out the contents of the gullet into the wound. It was attempted at one time to pass a stomach tube and so to feed the patient ; but he resented the attempt so strongly that the thing was abandoned as impossible. For a time he was allowed soft food by the mouth, the enemata being stopped, but invariably some of it came through the wound. On the fifteenth day after the operation the nutritive enemata were resumed and for three days he had absolutely nothing by the mouth ; the wound gave no further trouble, and a complete cure resulted.

R. Norris Wolfenden.

Lange, F. — *Impermeable Stricture of the Œsophagus — Internal Œsophagotomy from below after Gastrotomy — Recovery.* "New York Med. Jour.," Feb. 1, 1890. New York Surg. Soc.

THE patient, a child about four years of age, had swallowed a quantity of concentrated lye at the age of two years. Since then there had been varying difficulty in swallowing, and finally almost entire inability to swallow, and the child had to be nourished by enemata. With the patient under an anæsthetic the speaker had tried at three different times to pass an instrument beyond the stricture, but without success, the

point of resistance being about nineteen centimètres from the teeth. On May 24, 1889, gastrotomy was performed. An incision was made on the left side about three inches long, parallel to and about an inch from the free border of the ribs. The wall of the stomach was stitched to the peritoneum and then incised. The edges were united to the integument; the opening made easily admitted the index finger. An unsuccessful attempt was made to pass the stricture from below. Six days later, with the patient under chloroform, another attempt was made, and the following condition discovered: What had seemed to the finger as the œsophageal opening proved to be a diverticulum of the wall of the stomach drawn upward through the opening of the diaphragm. The opening of the tube proper was but a small depressed slit, about five millimètres in length, situated on the right side of the above-mentioned pouch. This was demonstrated by the touch and by the injection of air from above through a soft-rubber catheter. The opening was made visible by means of a thin glass speculum, with the largest size of urethral endoscope and the injection of milk from above. Any bougie or probe passed through this small opening was arrested at about five or six centimètres above the diaphragm. The speaker then had a glass speculum made of corresponding length and width in order to make the œsophageal opening better visible. On the eleventh day after the operation another prolonged attempt was made. At last, by combined manipulation from above and below, a small whalebone probe dipped into the stomach and was pulled outward. A thread was then attached to its lower end and a series of small blades was forcibly drawn through the strictured portion. After passing a urethral elastic bougie, 27 French, a drainage-tube of smaller calibre was left within the stricture, which reached down into the stomach. The external end was attached to a thread, which was passed out through the nostril fixed outside by adhesive plaster. This remained *in situ* for three days. Several days later, under narcosis, bougies were passed from above. Feeding had been carried on by passing a soft-rubber catheter through the pyloric orifice and injecting different nutrients. On the eighteenth day after the gastrotomy the stomach was closed; healing took place without any unpleasant symptoms. The patient's general condition improved. Fluids could be taken without difficulty. At intervals of three days bougies were passed, though nothing had been gained beyond the original calibre after the operation. In October the child was again placed under chloroform and an internal œsophagotomy performed. This allowed a bougie of 33 French to be passed, which calibre had since been maintained. The child, as exhibited to the society, was well nourished and vigorous. He was able to swallow fluids, mushy food, and solids if cut into small pieces. The speaker hoped to further improve the condition by repeated œsophagotomies at varying intervals.

R. Norris Wolfenden.

NOSE AND NASO-PHARYNX.

Phillips, G. H.—*Artificial Nose*. "Brit. Med. Jour.," June 29, 1889. Staffordshire Branch, B.M.A., May 30, 1889.

EXHIBITION of a girl, aged fifteen years, in whom the entire nose had been destroyed by lupus, and a vulcanite substitute attached to spectacles had been successfully provided. *Hunter Mackenzie.*

McAldowie (Stoke).—*Rhinolith*. "Brit. Med. Jour.," June 29, 1889. Staffordshire Branch, B.M.A., May 30, 1889.

EXHIBITION of specimen which had occupied the whole of the left nasal cavity of a girl aged nineteen years. *Hunter Mackenzie.*

Hatch.—"Brit. Med. Jour.," Feb. 1, 1890. Bombay Branch of Brit. Med. Assoc., Dec. 12, 1889.

THE author showed a patient suffering from an extensive ulcerating mass on the face, which had destroyed the nose and upper lip, extended up to the lower margin of the orbit, and encroached on the palate. Owing to the patient talking a language not understood by anyone, his history was not known, but it was understood to be of two years' duration. The nature of the disease is not stated. *R. Norris Wolfenden.*

Robertson.—*Specimens of Nasal Mucous Polypi, Nasal Polypoid Hypertrophies, and Nasal Papillomata*. Proc. of Northumberland and Durham Med. Soc., Jan., 1890.

SPECIMENS selected from thirty cases were shown. "In one strange case dyspeptic symptoms were at once cured on removal of growths, 'not complained of, in the nose.' Nervous reflexes from the lungs were met with in more than one case, and not where the obstruction was extreme. The author prefers the cold snare and galvano-cautery point for operating upon polypi.

No necrosis of ethmoid was noted in any case. True papillomata were met with in two cases on the inferior surface of the lower turbinated bone. Polypoid hypertrophies were mostly observed upon the anterior end of the middle turbinated bone. The excision of these and papillomata was attended with more hæmorrhage than mucous polypi.

R. Norris Wolfenden.

Francois-Franck.—*Contribution to the Experimental Study of Reflex Neuroses of Nasal Origin*. "Archives de Physiologie Normale et Pathologique," July, 1889.

THE record of experiments made at the Collège de France upon animals by exciting the nasal mucous membrane. Franck has obtained sneezing and cough from irritation of the free edge of the middle turbinated body in a dog. He has also obtained glottic spasm, particularly on irritating a mucous membrane previously inflamed. Bronchial spasm has been

obtained by a very strong stimulation of the turbinateds. Besides spasm, Franck has obtained arrest of respiration or changes in rhythm. Progressive reflex slowing of the heart has been also obtained when the nasal mucous membrane is not anaesthetised.

Irritation of the healthy or inflamed pituitary membrane produces active dilatation of the cerebral vessels, not only on the side operated upon, but to a lesser degree on the opposite side. The author concludes that nasal excitation leads to reflex vaso-dilatation of the head, and vaso-constriction of the rest of the body equally at the periphery as in the deeper regions.

Joul.

Douglas.—*The Treatment of Chronic Nasal Catarrh.* "Med. Rec.," Jan. 4, 1890. Med. Soc. of the County of New York.

AFTER discussing the thesis, "what is a cold?" and "chronic catarrh," which he believed arose most frequently from the presence of obstructions in the nose, especially thickening of the middle turbinated bodies, and retention of acid secretions which excited inflammation, which he treated by removing portions of the middle turbinated bodies with the forceps, removing enough to establish free respiration, he formulated his conclusions as follows:—

(1) The nose is not an unimportant organ, as some would suppose, but, physiologically and pathologically, is of first importance; (2) its position and functions expose it to injury and disease; variable temperature, chemical and mechanical irritants, as well as its normal functions perverted, tend to produce disease; (3) its diseases yield to appropriate treatment as certainly as those of any other complicated organ; (4) so-called catarrh is not a disease *per se*, but a symptom or result of other lesions; (5) chronic nasal catarrh is usually due to nasal obstruction; by this is meant not necessarily occlusion of the nostril, simply habitual contact of surfaces which are not normally in contact; (6) removal of the cause is always the first step towards cure, and this frequently requires surgical interference. Local and general medication are secondary, but by no means of slight importance; (7) the nose and its diseases are deserving of more attention from the general profession, because the consequence of neglect is far-reaching and serious; (8) chronic nasal catarrh is not as difficult to cure as he formerly supposed.

Dr. CURTIS, in the discussion following, stated he was chary of operations upon gouty persons, as in three instances he had observed a severe acute attack of gout follow the operations.

Dr. BUCKLIN was satisfied that modern rhinological methods had advanced beyond the period when attempts were made to replace the septum, or "rejuvenate the turbinated bodies" with glycerine suppositories. Where there was adhesion between the turbinated bones and the septum, he took out the whole turbinated bone. He had never seen gout follow operations upon the nose.

Dr. KITCHEN took somewhat the negative side of the question. While a certain number of cases were cured by operative measures, in the vast majority of cases operation removed the effects of the disease, but not cause. Chronic nasal catarrh was, in his opinion, a form of malnutrition

A change to a correct mode of living, and to a suitable climate, would cure most cases of chronic catarrh when the cause was not due to hereditary malformation, to traumatism, etc. Without changing the patient's mode of existence the specialist might alleviate, but could not expect to cure, the complaint.

Dr. BEVERLEY ROBINSON disagreed with some of the views expressed, and thought that too much stress had been laid upon nasal stenosis, and necessity for surgical interference. A certain amount of obstruction or deformity was not incompatible with health. Where obstruction was a cause of catarrh, it should be relieved, but other matters, relating to food, hygiene, air, diathesis, had to be taken into account.

Dr. HOLCOMBE very pertinently remarked that he doubted whether there was any specialist in diseases of the nose present who would undergo the operations upon the nose to which he subjected his patients.

He had suffered much himself from nasal troubles, but on going to a high altitude in Colorado, his nasal symptoms disappeared. Probably all patients called incurable would get better in a higher, drier climate. Nasal catarrh was often produced reflexly by irritation from a distant part of the body.

Dr. MESSENGER believed that though Dr. Douglas and others had relieved their patients for a time, they had not effected a cure. He believed in treating the general system, and, as local treatment, sniffing a solution of salt or soda.

R. Norris Wolfenden.

Joal.—*Certain Phenomena of the Ménopause of Genito-nasal Origin.* Congrès de Laryngol., Paris, Sept., 1889.

WOMEN at this critical age present certain phenomena—heat of the face, sudden flushings, cephalalgias, migraine, insomnia, stinging sensations, vertigo, epistaxis, eruptions on the lips or cheek—phenomena which are usually attributed to congestion of the head, circulatory disorders of mechanical order, supplementary fluxions. Joal has had under his care four patients with migraine, vertigo, asthma, and eruptions of the face, occurring at the ménopause, all of whom have been cured by intra-nasal treatment. In such cases the nasal phenomena are secondary, and produced by the intervention of the genital factor, of which the author has previously demonstrated the influence upon the nose. At puberty and at the ménopause, physiological or pathological excitation of the genital organs reacts upon the nasal mucous membrane, the erectile tissue of the nose being tumefied, and nasal neuropathics developing.

Joal.

Gerber (Konigsberg).—*Retro-Nasal Catarrh and its Treatment, with especial reference to Tornwaldt's Disease.* "Therapeut. Monats.," Jan., 1890.

THE author gives a good report of sixty-one cases, with the purpose of examining into the question of Tornwaldt's disease. Twenty-five of these cases had the ordinary characters of common catarrh. In some there was fetor, where there was no complication with ozæna. The mucous membrane was covered with secretion, but the anterior part of the naso-pharynx was in most cases free. After removal of the secretion a recess in the mucous membrane became visible. In nine cases it was

single; in twelve cases there were three recesses, and in fourteen none at all. In some cases secretions were found to be retained in the fossa of Rosenmüller. In other cases a true retro-nasal tonsil, containing many recesses, could be seen, in some of which a central recess was generally visible. True cysts as observed by Tornwaldt were never seen by the author. The author concludes that many symptoms of disease referred to the nose are caused by retro-nasal catarrh, and this condition can only be recognised by rhinoscopical examination. The catarrh may affect the whole pharynx or the recesses of the fornix pharyngis, particularly the median recess. Rosenmüller's fossa may also be affected. In atrophic pharyngitis fœtor is often observed. Catarrhs of the recessus pharyngis can be cured by Tornwaldt's method. *Michael.*

Raulin.—*Primary Lupus of the Nasal Mucous Membrane.* "Thèse." Bordeaux, 1889.

AFTER reviewing the history of the subject, the author studies the pathogeny of lupus, and discusses the three principal theories held as to its nature, viz., syphilitic, scrofulous, or tubercular, and concludes in favour of the latter view.

Predisposing causes are found in age, sex, occupation, traumatism, scrofulous diathesis, but the single determining cause is the penetration of Koch's bacillus into the nasal mucous membrane. The functional and objective symptoms manifested establish three clinical forms of the disease, viz., hypertrophic, ulcerative, and sclerous. As to treatment, the author recommends scarification, which he has seen successfully practised by Dr. Moure. *Joad.*

Marano.—*On the Nature of Ozæna.* "Archivii Italiani di Laringologia," Anno X., Fasc., Jan. 1 1890.

THE author has made bacteriological researches (in order to control Loewenberg's researches) upon several patients in Massei's clinic. He arrives at the following results:—(1) In the nasal secretions of patients with ozæna there is really a spiral micro-organism, which has more the shape of a bacillus than a coccus, and for which Marano suggests the name of rhino-bacillus. (2) This micro-organism is not present in other inflammatory conditions of the nose, or in other discharges. (3) The bacillus is capsulated, but differs from other parasites described by Dittrich, Paltauf, Friedlander, Babes, Mibelli, Melle, Peltizzari, and Sagari. The capsule may be seen by staining in a particular manner, which is described by Marano in his work. (4) The bacillus is very abundant in those cases where no treatment has been adopted, diminishes in those cases which are locally treated, and is never present in the typical forms of rhinitis atrophica. (According to Massei, ozæna is a specific catarrh which ends in the atrophic form, atrophic rhinitis not, however, being ozæna, and these bacteriological researches seem to confirm this view.) (5) The micro-organism is the same as that described by Loewenberg, but as remarked, it has more the form of a bacillus than of a coccus. (6) Hajik's bacilli are the same as those met with in common putrefaction, and are not pathognomic.

Marano admits that in the absence of inoculation experiments it is not possible to speak dogmatically of the value of these studies.

Massci.

Ball, J. B.—*Hæmatoma of the Nasal Septum.* "Brit. Med. Jour.," Jan. 25, 1890. A BOY, aged seven, was brought to the West London Hospital on August 18, 1888, said to be suffering from polypus of the nose. The nose was much enlarged in consequence of each nostril being occupied by a smooth, reddish tumour, which protruded beyond the orifice, completely occluding the passage, and pressing out the ala on each side. The tumours were nearly symmetrical, that on the right side being slightly larger than that on the left. They had a soft, fluctuating feel, and could be seen to merge in the septum just above the columna. No fluctuation could be made out from the tumour on one side to that on the other. There was no pain or tenderness.

The history was that the boy had a fall on the nose three weeks previously, which caused his nose to bleed, and slightly abraded the skin of the tip. A few days after this the swellings were noticed, and they had gradually increased till the date of his coming to the hospital. There seemed no doubt that the case was one of hæmatoma or abscess of the septum, and the absence of pain and tenderness pointed to the former.

The boy was kept in bed for a few days, and an evaporating lotion applied. The swelling began to subside at once, and on September 1 he could breathe through the nose. On September 15 the swellings had completely subsided. The dorsum of the nose was somewhat flattened below the level of the nasal bones, and the lower margin of the nasal bones in the middle line projected very slightly, owing to a dislocation of the cartilage at this point. The cartilaginous septum was deviated to the left at the fore part.

R. Norris Wolfenden.

Stewart.—*Growths in the Naso-Pharynx.* "Brit. Med. Jour.," Jan. 25, 1890. Nottingham Medico-Chir. Soc., Jan. 8, 1890.

A PAPER on adenoid tumours of this region. The author described the pathology of the vegetations, with their far-reaching influence for harm, where nasal obstruction was produced by hypertrophy of the pharyngeal structures, for instance, in the production of mental torpidity in children, catarrhal affections of the respiratory surfaces, malformations of the thoracic walls, and diminished hearing power. Modes of examination and instruments employed were described, and the different methods of treatment detailed. In his own practice Dr. Stewart nearly always used anesthetics and Gottstein's curette for scraping away the growths, throwing the head as far back as possible, and producing only partial anaesthesia.

R. Norris Wolfenden.

Baumgarten (Budapesth).—*Rhino-Chirurgical Communications.* "Wiener Med. Woch.," 1889, No. 51.

1. *Rhinolithiasis.*—A patient, fifty-four years old, had for ten years pains in the right side of her face, fætid secretion, and obstruction of the right nostril. Extraction of a rhinolith which had as its nucleus two grape-stones. Cure.

2. *Perforation of the Nasal Septum following Diphtheria.*—A patient, twenty-eight years old, had a slight diphtheria of the tonsils. Five weeks later acute catarrh of the right nostril, obstruction, and an ulcer on the left side of the septum. Sixteen days later, after the antiseptic treatment, the patient was cured, but there remained a perforation of the bone of the right side, without affection of the mucous membrane.

3. *Membranous Obstruction of the Choanae.*—A patient, thirty-one years old, had an obstruction of the nose for two years. The rhinoscope showed a membrane covering the choanae, and occluding the nasal orifice of the pharyngeal cavity. Galvano-caustic destruction of the membrane resulted in cure. It is difficult to decide whether the occlusion was congenital or not.

4. *Rhinitis and Rhino-Pharyngitis Fibrinosa.*—In a patient, nineteen years old, adenoid vegetations were removed by the forceps and subsequent galvano-caustic treatment. After the third visit the patient became feverish, and experienced pains in her nose and snuffling. The nasal mucous membrane was covered with white-greyish membranes. Brushings with glycerine and iodine resulted in cure. In a second case, a similar membranous rhinitis followed the extraction of a nasal polypus.

5. *Gumma of the Nose and Naso-Pharynx.*—In two cases the author had occasion to observe real gummatous tumours of the nasal septum.

6. *Cyst of the Nasal Septum.*—In an adult patient, whose face was wounded in his third year by the foot of a horse, the author found a tumour in the right nasal cavity, of the size of half a walnut. By puncture he removed serous fluid. The author believes that the patient had from the traumatism a hæmotoma, that the blood was absorbed and the cyst remained. There was no indication for operation upon the cyst.

Michael.

LARYNX.

Semon and Horsley.—*On the Central Motor Innervation of the Larynx.*

"Brit. Med. Jour.," Dec. 21, 1889.

THE conclusions which the authors have arrived at are as follows:—

1. There is in each cerebral hemisphere an area of bilateral representation of the adductor movements of the vocal cords, situated in the monkey just posterior to the lower end of the præcentral sulcus at the base of the third frontal convolution, and in the carnivora in the præcrucial and neighbouring gyrus. This area has a focus of intensest representation in the anterior half of the foot of the ascending frontal convolution. Stimulation of this point produces complete bilateral adduction of the vocal cords, which lasts as long as the stimulation is continued. Should, however, the latter be unduly prolonged the "*besoin de respirer*" overcomes the influence of the artificial stimulus and evokes a momentary but powerful abductor movement of the vocal cords. Stimulation of the more

peripheral parts of the area evokes less and less perfect adductions as we proceed from the focus outwards, and when the extreme margin of the area is excited only what is known as the "cadaveric position" is assumed by the vocal cords.

The above description applies to the monkey, dog, and rabbit. In the cat they have observed curiously different conditions, for which, at present, they are not prepared to offer any explanation.

2. They have not been able to find an area of representation in the cortex of the abductor movements of the vocal cord.

3. If one of the cortical areas for adduction be so completely excised that stimulation of the neighbourhood of the lesion produces no effect upon the larynx, and if the wound be allowed to heal aseptically, no paralysis of the cords is observed. Further, if subsequently the corresponding area in the opposite hemisphere be excited, just as completely bilateral an adduction of the cords is produced, as if the opposite area were intact.

From the above facts they infer that—

(a) Unilateral irritation produces bilateral effect. Thus clinically in any irritative unilateral affection of this area, spasm of the glottis, that is, bilateral adduction of the vocal cords, may occur, for example, in laryngismus stridulus. That this view is not purely theoretical is shown by the association, in severe cases of the last-named illness, of the glottic spasm with the so-called carpo-pedal contractions. This association is most easily explained on the assumption that there is an overflow of energy from the laryngeal to the neighbouring cortical areas for the limbs.

(b) Unilateral destruction produces no effect. There is, therefore, no such thing as unilateral paralysis of a vocal cord from lesion of a cerebral hemisphere, as has been asserted. The truth of this statement is made evident by the fact that motor aphasia is not identical with aphonia. Moreover, the observation by one of the authors of several patients with complete aphasia and right hemiplegia, only a few hours after the apoplectic stroke has conclusively shown that in such instances the movements of the vocal cords are perfectly preserved.

4. They have observed that on powerful or long-continued excitation of the laryngeal area true epilepsy of the vocal cords supervenes, gradually spreading to the neighbouring muscles of the face, neck, head, and upper limbs. From this they conclude that the epileptic cry is not, as has been so long believed, the result of a discharge primarily from the medulla oblongata, but rather represents a stage in the cortical excitement popularly termed an epileptic fit.

5. Whilst they have found so distinctly specialised an area of representation of adduction in the cortex, and no corresponding area of abduction in this region, they have, on the other hand, found that direct excitation of the accessory nucleus in the medulla oblongata evokes abduction of the cords, and never anything else.

From all the foregoing it follows that their results are in complete harmony with the most recent views of the relation of the cortical to the lower centres; for their experiments have shown that the representation of the laryngeal movements in the cortex is essentially that known as

purposive or volitional, since it is adductional, that is, phonation; whilst, on the other hand, the bulbar representation of the larynx is essentially adapted for the so-called automatic processes of organic life, that is, abduction-inspiration.

Finally, this series of experiments, as well as those they have previously published on the peripheral innervation of the larynx, corroborates in the fullest manner the ideas which Semon has put forward in his first papers on abductor paralysis, namely, the proclivity of the abductors to fail in organic, and of the adductors in functional, disease.

R. Norris Wolfenden.

Jacob.—*Functional Disturbances of Speech.* "Brit. Med. Jour.," Feb. 22, 1890.
Leeds and West Riding Medico-Chir. Soc., Feb. 7, 1890.

AFTER giving a sketch of the principal ways in which speech might be pathologically affected, the author gave an account of two cases of functional aphemia lately under his care. In the first case, that of a middle-aged man, it had come on gradually eight years before in connection with mental troubles in consequence of business anxieties. In the other case aphemia had suddenly come on a few days before in the course of ordinary conversation. Both were completely cured by the inhalation of ether. In connection with the subject of ordinary nervous aphonia, Dr. Jacob recommended early treatment by faradism, though tonics were generally also required. Mr. Teale recalled the case of a hysterical woman, who could not speak, but he induced her to try and speak French, to which she had been early accustomed. She then could speak fluently. Mr. Farrow related the case of an aphonic girl, who on two occasions on a journey to the same place recovered her voice at exactly the same station on the railway. She had been treated by faradism unsuccessfully. Dr. Bronner, in applying faradism for aphonia, used a strong current, and told the patients he would continue it till they screamed. He applied cocaine to the larynx before and after the operation, as he had seen considerable hyperæmia caused by endolaryngeal faradism.

R. Norris Wolfenden.

Gould, G. M. (Philadelphia).—*Clinical Illustrations of Reflex Ocular Neuroses.*
"American Jour. of the Med. Sciences," Jan., 1890.

AMONGST other cases, the author cites one of aphonia with other nervous symptoms due to compound hyperopic astigmatism and insufficiency. Periodical attacks of aphonia had occurred, lasting for a few days, a condition which had existed for five years. These had several times been treated by the galvanic current, when the voice had returned. While wearing a pair of spectacles for a year the patient had no aphonia. Latterly the attacks had recurred along with blepharospasm.

When she came to the author she was voiceless. The use of a mydriatic at once restored the voice. When fitted with proper spectacles for the relief of her astigmatism she was for three months without loss of voice, sick headaches, blepharospasm, and a numbness of the right side of the body, with choreic jerkings and insomnia, disappeared too.

R. Norris Wolfenden.

Mermod.—*Endo-laryngeal Electrolysis.* Soc. Vaudoise de Méd. "Rev. Méd. de la Suisse Rom.," Jan. 1890.

THIS method of treatment, performed under cocaine, and with long laryngeal needles bent to the angle of the ordinary curve of laryngeal instruments, and covered with protective varnish is productive of the best results in the treatment of the infiltrations, etc., of laryngeal phthisis. There is no pain or hæmorrhage during the application of the current. After two or three sittings the infiltration diminishes, and the general condition improves.

M. Secrétan remarked that he had seen Mermod operate, and could confirm the good results obtained, but he thought that less complicated treatment would attain the same results. Mermod replied that electrolysis would cure a condition in which other treatment had failed.

R. Norris Wolfenden.

Schneidemühl (Kiel).—*The latest results of the Laryngeal and Tracheal Applications of Medicaments to the Treatment of Animals, and their value in Internal Therapeutics.* "Deutsch. Med. Woch.," 1890, No. 4.

THE author describes the method of application. The horse's trachea must be perforated with a trocar, the tube of the trocar remaining *in situ*. The medicament is injected by a Pravaz syringe. A great number of medicaments can be applied in this manner. The method is productive of much good in the petechial fever of horses; good results are also obtained in the treatment of chronic laryngitis in the so-called "Schweinsberger" disease, in tetanus equorum, and in epilepsy. Experiments upon men have been made by Dor (Lyon), who has applied injections of creosote oil in phthisical patients, which prove that the method can be applied without danger.

Michael.

Moser (Hamburg).—*The Application of Wiegert's Hot-Air Apparatus in Tuberculosis of the Lungs and Larynx.* "Berliner Klin. Wochens.," 1889, No. 52.

THE author has used this method in twenty cases of pulmonary phthisis without obtaining any good result. Ulcers of the larynx, however, both phthisical and syphilitic, are sometimes cured under this treatment, but the author is forced to conclude that the method cannot be recommended.

Michael.

Wolff, Ludwig (Gothenburg).—*Remarks on Foreign Bodies in the Air-Passages.* "Hygea," No. 4, 1889.

AFTER some general remarks the author relates a case of a young man, who, whilst eating, got a piece of bone (the smallest diameter being eight millimètres, the largest fourteen) into his air-passages, where it remained for about two months, its situation probably being in the inferior part of the trachea. During all this time the patient suffered from slight dyspnœa, severe cough and abundant expectoration of phlegm (without any blood). Some days there were also signs of a slight inflammation of the right lung ("Schluck-Pneumonia"?). After the administration of a strong expectorant mixture, the patient coughed the foreign body up, and shortly afterwards recovered completely.

Holger Mygind.

Baber, E. Creswell (Brighton).—*Strumous Disease of the Upper Respiratory Tract.* "Brit. Med. Jour.," June 22, 1889. Brighton and Sussex Medico-Chirurgical Society, May 2, 1889.

A GIRL, aged eighteen years, was shown, having, besides a tubercular eruption on the outside of the nose, a perforation of the cartilaginous septum, with healed edges, and signs of old pharyngitis. There was shrinking of the epiglottis and thickening of the ventricular bands. The sensitiveness of the pharyngeal and laryngeal mucous membrane was considerably diminished. It was uncertain whether the case partook of the nature of lupus.

Hunter Mackenzie.

Simpson.—*A Report of Four Cases of Laryngeal Obstruction in the Adult, Treated by Intubation.* New York Acad. of Med., Jan. 28, 1890.

IN the four cases to be reported, the urgent symptom in all had been dyspnœa; but it was demonstrated how different might be the cause of the stenosis, and how well it might be overcome by early resort to intubation.

CASE I.: *Specific Gumma of the Larynx.*—The patient, a married woman, aged twenty-six, had given a history which pointed to syphilis, but had had no laryngeal trouble previous to the present attack. Hoarseness and loss of voice had come on, and ultimately severe dyspnœa and suffocative attacks. This condition had been treated for asthma and bronchitis. Examination of the larynx showed almost entire occlusion by a large, irregular, greyish, granulating mass, of cauliflower appearance. The vocal cords were entirely hidden, though there seemed to be a small pin-hole opening, through which respiration was carried on. The patient was placed on large doses of iodide of potassium, with no improvement. The dyspnœic attacks becoming so alarming and frequent, intubation was performed, and followed by immediate relief.

The tube was retained three days, during which time the patient was able to swallow without any inconvenience. Examination of the larynx soon after removing the tube showed an entirely different state of things. All that had remained of the mass was a few small, reddish granulations, and the calibre of the larynx was practically normal. The patient had been kept under observation for some months, and there had been no return of the trouble.

CASE II.: *Syphilitic Thickening and Ulceration of the Larynx, occurring in a Married Woman, thirty-five years of age.*—There was no history of syphilis, but a family history of asthma. Some time ago the patient began to have cough, then hoarseness, dyspnœa on exertion, and failure of the general health. Physical examination had revealed dulness over the right apex, both front and back. Expiration was high-pitched and prolonged. Examinations of the larynx showed the arytenoids to be clubbed. The aryteno-epiglottic folds and the ventricular bands were thickened and ulcerated from the posterior wall of the pharynx to a point below the right vocal cord. There was also a cicatrix seen at the junction of the hard and soft palates, which had led to the belief that the case was probably of syphilitic nature, instead of tubercular, as had

previously been supposed. The patient was at once put on anti-specific treatment, but no improvement had followed.

The suffocative attacks becoming more frequent, intubation was decided as necessary. On account of the almost entire obstruction of the lumen of the larynx, intubation was performed with great difficulty. The relief from the extreme suffocation was immediate. The tube was left *in situ* for six days. There was considerable distress during this time from cough, pain and difficulty of swallowing, rectal alimentation being resorted to. The patient would have recurrence of the paroxysms whenever the anti-syphilitic treatment was suspended for any length of time, a second intubation having been performed some months later.

Case III. : *Syphilitic Stenosis of the Larynx*.—Mrs. M., aged forty-five. This patient gave a history of syphilis. The trouble had commenced with a sore throat, the pain in the larynx, with dyspnœa coming on in paroxysms, until the patient had suffered with such fearful suffocative attacks that she was afraid to lie down. Anti-specific treatment had been fully carried out. The larynx was shown to be swollen and indurated, with the lumen almost entirely obliterated. There was a small protruding mass arising from the left ventricular cavity, which had the appearance of fresh granulating tissue. Intubation was difficult in this case ; the smallest size tube had to be used. But the patient was able to retain it for eighteen days, during which time she swallowed fluids and semi-fluid foods. The appearance of the parts, after removal of the tube, had shown increased breathing space and fair motion of the cords.

Case IV. : *Bilateral Adductor Paralysis in a young Married Woman*.—There was a history of repeated attacks of dyspnœa, which lasted from two to three days, with cough and loss of voice. The last attack had lasted four days and nights, and when the patient was seen by the speaker she was in a comatose condition. She could be aroused somewhat, but would relapse at once into the former insensible condition. This was thought to be due to the morphine and atropine, which had been given the night before, to procure sleep. Examination of the larynx showed paralysis of the adductors of both vocal cords. There was no movement of the larynx ; the current of air produced only a flapping motion of the cords. Intubation was performed as soon as the patient had come out of the coma. This was followed by instant relief. About six hours after the introduction of the tube, the patient developed pneumonia, and died the next day.

In this case the pneumonia was no doubt brought on by the retained bronchial secretion, and death by heart failure in the beginning of the disease. If intubation had been performed earlier, the results would, no doubt, have been very different.

In the discussion Dr. O'Dwyer said that one of the reasons that intubation sometimes failed in acute laryngeal stenosis was, that the lower end of the tube would become occluded with the pseudo-membranous mass, which could not be expectorated. It was to obviate this difficulty that the present instruments had been devised. He then exhibited a set of intubation-tubes, which he had used for the above-mentioned purpose, and the utility of which had been practically demonstrated.

R. Norris Wolfenden.

Koch (Luxembourg).—*The Practice of Tracheotomy in the Phthisical; its Indications and Contra-indications.* Congrès de Laryngol., Paris, Sept., 1889.

THIS operation ought only to be performed if the obstacle to respiration exists in the larynx or trachea. It is necessary always to avoid the cricoid cartilage, as this body is often affected by the tubercular process. It is only in rare cases of tubercular growths that the operation is curative, but in this case laryngotomy and excision of the tumours are performed at the same sitting. Koch related five cases of laryngeal phthisis, and concluded—(1) tracheotomy being refused by the patient, it is incumbent to prescribe absolute rest, and to make local applications; (2) if the signs of laryngeal stenosis are declared in a pregnant woman, the operation should be performed before accouchement; (3) tracheotomy prolongs the patient's life for many years.

Joal.

Handford.—*Rupture of Tubercular Gland into a Bronchus.* "Lancet," Jan. 4, 1890. Nottingham Med. Chir. Soc.

THE accident occurred in a case of acute tuberculosis and tubercular meningitis. The author traced the general and meningeal affections to the rupturing of the tubercular gland.

R. Norris Wolfenden.

Bull.—*A Pin in the Right Bronchus—Tracheotomy.* "New York Med. Jour.," Feb. 8, 1890. New York Academy of Medicine.

DR. BULL showed a pin, two inches and three quarters in length, which he had removed from the bronchus of a child. At the time the pin was swallowed the child had got black in the face, but the spasm had passed off. Pain was complained of for several days, but this was only experienced when the child was raised from the recumbent to a sitting position. Purulent expectoration was noticed, and the temperature had risen to 102°, with loss of appetite and some vomiting. The speaker had performed tracheotomy, and had luckily found the point of the pin resting at the angle of the incision, while the head of it lay in the right bronchus. The pin had been in the trachea five days.

R. Norris Wolfenden.

Landgraf.—*The Pathology of Tracheal and Bronchial Stenoses.* "Verein für innere Medizin in Berlin," Dec. 2, 1889.

THE symptoms of tracheal and bronchial stenosis are produced mechanically; inspiratory dyspnoea, stridor, respiratory retraction of the thorax, unilaterally in unilateral stenosis. If in such cases the larynx remains healthy, the diagnosis is assured, but it is often not easy to determine the cause of the stenosis, especially if the site of the stenosis cannot be seen by tracheoscopy. The spot is often not visible, if it is covered by laryngeal swelling, or if there is double stenosis. The author reviewed all the causes of stenoses, and referred to a case observed by himself, in which a patient, thirty-one years of age, showed all the symptoms of tracheal stenosis, but it was impossible to see laryngoscopically any cause. A probe could be introduced into the trachea and both bronchi without meeting with any resistance, and under hydropathic treatment the patient was perfectly cured. He believes, therefore, that the case was one of "hysterical stenosis."

LUBLINSKI observed that he had seen one such case in a young lady, which was cured by anti-hysterical treatment.

GERHARDT had seen Landgraf's patient and confirmed his diagnosis, remarking that nervous strictures are seen in other tubes of the body as in the intestines.

HEYMANN observed that he had seen a similar case.

GUTTMANN and FURBRINGER remarked that they had never seen tracheal stenosis in cases of carcinoma of the lungs. *Michael.*

THYROID, NECK, &c.

Berry, J — *Specimens Illustrating Disease of the Thyroid Gland*. "Brit. Med. Jour.," Jan. 25, 1890. Pathological Society of London, Jan. 21.

THE author read a paper on diseases of the thyroid gland, illustrating it by a series of thirty-four specimens, forty photographs, and sixteen casts, which had been collected by him in the course of the last five years. Some of the specimens had been removed by operation during life; most of them, however, were from the *post-mortem* room. Two specimens showed the usual condition of the thyroid gland in myxœdema; the organ in each case was greatly atrophied, and quite devoid of glandular tissue. A specimen of senile atrophy was contrasted with the preceding; although much diminished in size, it still contained much well-formed gland tissue. Several photographs of different varieties of cretinism were shown; some of the patients had goitres, some had not. The majority of the specimens showed the structure of the different varieties of goitre. In the early stage of the disease there was usually general hypertrophy of the whole gland, attended with an increased amount of colloid secretion in the thyroid vesicles; to such goitres the term *parenchymatous* was usually applied. The specimens showed various stages between this condition and those in which one or more large cysts were present, or in which there was considerable increase in the connective tissue of the gland. Fibrous goitre was stated to be probably much less common than was often supposed; many cases diagnosed as such during life subsequently proved to be of a different nature. A specimen of goitre from a case of Graves' disease was shown, and attention was drawn to the small size of the thyroid arteries; and other facts also showed that the gland in this disease is not nearly so vascular as is often supposed. Several specimens showed distinctly encapsulated tumours, cystic or solid, imbedded in the substance of the thyroid gland. True simple hypertrophy always involved the whole gland, not merely a part of it; it never caused any great enlargement. Nearly all unilateral goitres, and goitres of very large size, were composed either of cysts or of more or less definitely circumscribed solid tumours of the gland. Examples were shown of goitres occupying unusual situations, such as near the angle of the jaw; in one specimen a process of gland extended transversely across the neck at the level of the

hyoid bone. In one third of the specimens the existence of a "pyramid" or process extending upwards in front of the larynx was demonstrated. The obstruction which an enlarged pyramid would necessarily cause in a tracheotomy or laryngotomy was pointed out. The alterations produced by goitre in the position and shape of the trachea were next discussed. All uniform enlargements of the gland caused lateral flattening of the trachea. A specimen was exhibited in which death had occurred from dyspnoea caused by this flattening, and reference was made to numerous other cases of similar nature. Unilateral goitres and bilateral goitres, in which the two lobes were of different sizes, caused bending, twisting, lateral and oblique flattening, according to the shape of the goitre. Specimens and casts of the interior of tracheas deformed by goitre were shown to illustrate these points. Antero-posterior flattening of the trachea was shown to be very rare; goitres lying immediately in front of the trachea, and not involving much of the lateral lobes, were shown to be rarely the cause of dyspnoea. The apparent softening and atrophy of the trachea, which has been described, was alluded to. Pressure of the goitre upon the œsophagus, recurrent laryngeal nerves, and sympathetic nerves was shown by some of the specimens and photographs. Three photographs showed various stages of cachexia strumipriva produced by the total extirpation of goitre, and others illustrated conditions after partial extirpation. The latter showed the advantage of leaving a portion of the gland sufficiently large to carry on its functions. Eight of the specimens exhibited had been removed by operation, three by the author, five by other surgeons; in most cases the operation had been performed on account of dyspnoea.

Mr. HORSLEY referred to a paper by Dr. Anton von Eiselsberg¹ Professor Billroth's assistant, which contain the most recent experimental researches on the thyroid. He next referred to Professor Munk's idea that the changes which occurred after removal of the thyroid body were solely due to the disturbance of some of the cervical nerves during the operation, but stated that Dr. Eiselsberg's experiments showed that this was not the case, as he had in animals transplanted the gland from the neck to the abdominal wall, and in those cases in which the operation was completely successful the animals lived, but when the transplantation had been unsuccessful the animals had all died. Although cachexia strumipriva had only once occurred in the British islands, yet he considered that the results obtained experimentally up to the present showed that the thyroid gland could not be removed with impunity, and that whenever it was necessary to remove the gland from the neck, it should be replaced by another being transplanted from some animal into the abdominal wall or elsewhere, and he thought that this should be tried also in cases of myxœdema and cretinism.

Sir JOSEPH FAYRER mentioned the frequency of goitre in the Terai district in India, an extremely malarious district, and he had noticed that the thyroid was sometimes enlarged when the spleen was not, and *vice versa*. In 1850-55, two cavalry officers had treated large numbers of

¹ Ueber Tetanie im Anschlusse an Kropf-operationen, aus *Wiener Kl.n. Wochenschrift*.

goitres in the Terai with good results, by rubbing in an ointment of biniodide of mercury, and afterwards exposing the patients in the sun, and one or two such applications had generally been successful. He had himself tried the same means in Calcutta, but his success had not been quite so complete. He mentioned that he had, in one case of an enlarged pulsating thyroid, tied two thyroid arteries each as large as a goose quill, but without any effect in stopping the pulsation in the gland.

Dr. HALE WHITE had examined the thyroid gland in forty consecutive *post-mortem* examinations, and had discovered many changes unassociated with obvious clinical conditions. The cysts were especially liable to contain different products, and the microscopic variations were quite as marked as the macroscopic. He asked what symptoms could be attributed to the senile atrophy of the gland.

Mr. HAWARD referred to the question of the vascularity of the organ, and mentioned a case that he had published in the Society's *Transactions* in which there were secondary thyroid-like tumours in various parts of the body, and that some of these tumours were pulsatile.

Dr. DELÉPINE had seen some dogs from which Professor Schiff had removed the thyroid gland. In many of those that recovered glands of thyroid-like structure had developed in the submaxillary regions.

Dr. ANGEL MONEY asked Mr. Berry if he had noticed an enlargement of the thyroid in cases of chlorosis; he had himself noticed such an enlargement, and in such patients he had found that tetany was liable to occur.

Mr. BARLING mentioned a case quite recently under his notice, in which the right half of the thyroid was much enlarged and very hard, but after three evacuations of large quantities of pus the gland had diminished in size with great relief to the patient. He had regarded the case as one of suppuration of the cysts of the gland.

Mr. SOLLY asked Mr. Berry if he had seen any cases of lardaceous disease of the thyroid, and mentioned such a case which had come under his observation.

Dr. HALE WHITE mentioned a similar case.

Drs. HADDEN and PERRY had seen cases of miliary tubercles in the thyroid, and also lardaceous disease of that organ.

Mr. BERRY replied that he thought that transplantation in strumipriva should be tried, but questioned whether any good in cases of cretinism and myxœdema would occur from doing so. He had tried to ascertain whether there was any connection between the spleen and the thyroid body, but had been unable to establish any connection, though it was a fact that after the removal of the spleen from animals, the thyroid had occasionally been observed to become slightly enlarged, but there was no evidence that the reverse happened. There did not seem to be any connection between goitre and malaria, as, although Sir Joseph Fayrer had noticed the connection in Terai district, yet it had not been observed in the Campagna around Rome, nor in malarious districts in this country. He said that the biniodide of mercury treatment had been tried in this country, but without much success. In reply to Dr. Money, he had examined a few exophthalmic goitres, and found that there was an absence

of colloid material in the cysts of the glands. He believed that there was a close connection between chlorosis and exophthalmic goitre. Dr. Money's observation about tetany was interesting, as tetany had frequently been noticed after removal of the thyroid. He said that he could lay down no laws as to the relations of abnormal thyroids with various diseases, but he had noticed that fat persons who had died of pulmonary diseases had small red thyroids without any colloid material, and that in very emaciated bodies, as in death from cancer, the thyroids were very frequently large, from the cysts being full of yellow colloid material. Enlarged thyroids did not consist, as a rule, of a mass of vessels, though they often contained large ones. Suppuration of the thyroid generally occurred after typhoid fever or after operation, and Mr. Barling's case of spontaneous suppuration seemed to him an interesting one. He thought that probably in goitrous cretins the changes were due to loss of function and not to atrophy of the gland.

R. Norris Wolfenden.

Terrillon.—*Treatment of Goitre by Injection of Tincture of Iodine.* "Bulletin Thérapeutique," Sep. 30, 1889.

IN a lecture given at the Salpêtrière, Terrillon maintained that in making these injections three conditions are to be observed: First, it is necessary to be certain that the body of the tumour is reached before making the injection. Second, the veins in the cellular tissue or in front of the neck must be avoided. Third, it is essential to have a special syringe in order to avoid the introduction of infectious germs into the wound. Terrillon has assured himself by anatomical examination that iodine injections provoke the fibrous transformation of goitres. In place of iodine, other irritant liquids, such as iodoform-ether (10 per cent.) may be employed.

Joal.

Jacobson (London).—*Enlargement of Thyroid.* "Brit. Med. Jour.," June 8, 1889. Harveian Society of London, May 9, 1889.

EXHIBITION of a mother, aged thirty-seven, and five children, all the subjects of enlarged thyroid. In the case of the mother, Mr. Jacobson had removed the isthmus, all the left, and about a third of the right lobe, with entire relief to the dyspnoea. The ages of the children ran from one to eleven years, and the enlargement was most marked in the only girl, the second child, aged ten years. Dr. Stephen Mackenzie thought the series unique.

Hunter Mackenzie.

Obalinsky.—*Enucleation of Goitre by Socin's Method.* Kongress Polnischer Chirurgen in Krakau, 1889.

THE author related his experience of this operation, and concluded that in 80 per cent. of goitres enucleation could be performed. In the other 20 per cent. enucleation cannot be done, and for such cases resection of the goitre after Mickulicz's method is to be recommended. *Michael.*

Litten.—*Discussion on Scheinmann's Paper on a Case of Carcinoma of the Thyroid Gland.* "Verein für innere Medizin in Berlin," Dec. 2, 1889.

THE speaker had seen a case of adenoma gelatinosum of the thyroid gland, in which the bones and lungs contained masses of colloid growth.

He also remarked that it was not in all cases of ankylosis of the arytenoid joints that the voice is lost. He had seen a case of arthritic ankylosis of the arytenoid joints in which the voice was preserved.

SCHEINMANN remarked that in his case there was no occasion to suppose any affection of the bones. *Michael.*

Cheadle.—*Exophthalmic Goitre.* "Brit. Med. Jour.," Jan. 4, 1890. Western Branch of Met. Counties Branch, Brit. Med. Ass., Dec. 21, 1889.

THE author showed a case of exophthalmic goitre in a male subject. He considered that the symptoms were due to disorder of the medulla and upper cervical portion of the cord, the region of the cardio-inhibitory, accelerator, vasomotor, vomiting, and glycogenic centres, all of which were—some constantly, some occasionally—involved in the disease. The special interest of the case lay, first, in the fact that the patient was a man; and, secondly, as an example of perfect recovery maintained for more than twenty years. The patient was first seen in February, 1868, when he was suffering from all the characteristic vascular excitement, marked exophthalmos, and greatly enlarged thyroid, which pressed on the trachea so as to produce extreme dyspnoea, so that the patient could not lie down, and was compelled to sleep in a chair. Tincture of iodine was given freely, and in the course of a week marked improvement had taken place, and he continued steadily to improve. With regard to the question of sex, Dr. Cheadle's experience was only one male to thirty females. With regard to the ultimate issue, the statements of authorities were vague. He had followed out a number of these cases, and found the tendency to be towards slow recovery in from one to five years. In four cases seen at intervals of from eight to twenty-two years after the onset of the complaint, and in four others seen at shorter periods recovery appeared complete, yet for years there remained a quickened pulse, a certain amount of exophthalmos, and enlargement of the thyroid. Respecting the condition of the heart, his experience was that it was generally not affected beyond the presence of a functional *bruit*, produced by the violent contractions of the heart driving the blood into a dilated atonic vessel. Another point on which obscurity existed was as to the immediate cause of death in fatal cases. Some had said that it came from pulmonary congestion and anasarca, as in dilated heart, whilst Trousseau gave instances in which it was due to cerebral hæmorrhage. Dr. Cheadle had met with no instance of either. Cases were on record of death from pressure on the trachea, from acute mania, and from various intercurrent affections. Of the eighteen cases personally observed by Dr. Cheadle, three had proved fatal: one from uncontrollable vomiting, with convulsion and slight paralysis of the left arm; the second from uncontrollable vomiting and diarrhoea; the *post-mortem* examination disclosed no morbid condition; the third patient died suddenly from spasm of the glottis, due to pressure of the enlarged thyroid on the recurrent laryngeal. One of the gravest dangers, Dr. Cheadle considered, was persistent vomiting with diarrhoea. Absolute rest was essential in the acute stage of the disease, and opium with digitalis or

belladonna ; galvanism was useful in the more chronic state, but caused undue excitement in the acute form.

R. Norris Wolfenden.

Edwards, E. H.—*Exophthalmic Goitre*. "Lancet," Jan. 11, 1890. Birmingham and Mid-Counties Branch Brit. Med. Assoc.

THE author showed a girl, aged seventeen, who first noticed an enlargement in her neck two years and a half ago. She had complained of palpitation for two years. She complained of a feeling of great debility, was unable to sleep, and suffered occasionally from severe attacks of headache. Her speech was affected very much at times, when her voice was so husky that she had great difficulty in making herself heard. She had never menstruated. Her appetite was good, and the eyesight was unaffected. The measurement of the neck round the swelling was fourteen inches. The thyroid was equally enlarged on both sides. The eyes were lustrous and very prominent. The case was of interest from the fact that her father suffered from the same disease for twenty-five years, and eventually died from heart complications due to it.

R. Norris Wolfenden.

Barnes, Henry (Carlisle).—*On Exophthalmic Goitre and Allied Neuroses*. "Brit. Med. Jour.," June 1, 1889.

THE case of a servant girl, aged thirty-four, is recorded to illustrate the connection between exophthalmic goitre and diabetes.

Hunter Mackenzie.

Hollis.—*Graves' Disease*. "Brit. Med. Jour.," Jan. 4, 1890. Brighton and Sussex Med.-Chir. Soc.

THE author read notes of a case of Graves' disease with papillitis in a young woman. She attributed her illness to the removal of her tonsils three months before ; she became weak, thin, and pallid ; hæmoglobin falling to 54 per cent. of normal, pulse rising to 156 on slight exertion : exophthalmos and goitre slight ; discs red, blurred, indistinguishable from rest of fundus, vessels buried, hæmic cardiac murmur and well-marked *bruit de diable* audible over right lobe of thyroid, which was more enlarged than left ; urine normal. The patient was in attendance, and the discs were examined by several members.

R. Norris Wolfenden.

Cheadle.—*Myxœdema and Sporadic Cretinism*. "Brit. Med. Jour.," Jan. 4, 1890. Western Branch of Met. Counties Branch of Brit. Med. Hos.

THE author showed cases of myxœdema and sporadic cretinism. He remarked that the occurrence of the remarkable changes which distinguished the cretinoid state under four, or perhaps five, separate conditions rendered the question of its etiology most interesting. The conditions were: (1) endemic cretinism, when it occurred in infancy ; (2) sporadic cretinism occurring in children without any reference to goitrous district, congenital or developed in early infancy ; (3) idiopathic myxœdema supervening on previously healthy persons almost always in middle life ; (4) surgical myxœdema occurring after removal of the thyroid gland, as shown by Kocher and Reverdin, and confirmed by Mr. Victor Horsley ; (5) the condition called acromegaly.

R. Norris Wolfenden.

Clarke, T. Michell (Bristol).—*Myxœdema*. "Brit. Med. Jour.," May 18, 1888; Bristol Medico-Chirurgical Society, April 10, 1889.

EXHIBITION of a woman, aged fifty-one, who presented the symptoms and appearances of this disease, including complete absence of the thyroid. The patient had been affected from the climacteric period, fourteen years previously. *Hunter Mackenzie.*

Davies, A. (London).—*Myxœdema*. "Brit. Med. Jour.," June 1, 1889. Clinical Society of London, May 24, 1889.

EXHIBITION of a woman, aged forty-six, the subject of well-marked myxœdema, which had existed for four and a half years. The temperature was subnormal, there were no hæmorrhages, and the excretion of uræa was below normal. *Hunter Mackenzie.*

Durham (London).—*Case of Sarcoma of Neck, displacing Trachea, and causing Pressure on Recurrent Laryngeal and Sympathetic Nerves*. "Brit. Med. Jour.," June 15, 1889. Metropolitan Counties Branch B.M.A. (North London District), May 23, 1889.

EXHIBITION of patient. *Hunter Mackenzie.*

Thomson, J. Hilton (Manchester).—*Sterno-Mastoid Tumour*. "Brit. Med. Jour.," May 25, 1889. Pathological Society of Manchester, May 8, 1889.

A SPECIMEN was shown from a child who died (of pneumonia) at the age of seven months. Shortly after birth an oval swelling was observed on the left side of the neck. It was hard and elastic, and was intimately connected with the sterno-mastoid. On *post-mortem* it was found to consist of a swelling of the muscle owing to the presence of bands of fibrous tissue between the muscular fasciculi. *Hunter Mackenzie.*

Thornton, B. (Margate).—*On Operative versus Therapeutic Treatment of Struvious Glands*. "Lancet," Feb. 1, 1890. West London Med. Chir. Soc.

THE author alluded to the records of the last fifty years at the Royal Seabathing Infirmary, Margate, which testified to the unsatisfactory and tedious methods of treatment prevailing up to within the last few years. Having reviewed the various modes of treating enlarged glands in their different stages, such as erosion, by poultice, iodine paints, mercurial ointments, calcium sulphide, etc., injections of various drugs, and application of strong caustics, he pointed out that whatever action these methods had in the diseased glands, the process was very tedious and uncertain, and the resulting scars most unsightly. An operative experience of about a hundred cases of various degrees of magnitude led him to urge the excision of every enlarged gland or part of a gland after a reasonable period (say, six or eight months) of constitutional treatment and change of air to the seaside. Modified operations, such as scooping, aspiration, small punctures with drainage, were nearly always unsatisfactory, as diseased gland tissue was left behind. Hitherto he had, fortunately, had no death or serious complication to record, and the vast majority of cases had healed rapidly. He claimed for the method of excision that many months of tedious treatment were saved, the resulting scars were less unsightly, and that the operation, if performed with skill and care, and in good hygienic surroundings, was usually satisfactory. The President

asked if tuberculosis had not been found to follow operations for the removal of glands, and whether there was not danger of the disease spreading in other organs. Mr. Edwards agreed about the importance of drainage, and thought that this should be done not only by horse-hair and catgut, but by drainage tubes. Dr. Alderson said he would sometimes use hot fomentations with poppy water, if there was no doubt that an abscess in a gland would have to be opened. Mr. Keetley thought that when a chronic enlargement of a gland, not syphilitic, persisted in spite of sea air, etc., the sooner it was excised the better, and that the dangerous and difficult cases were those in which the radical treatment had been procrastinated. Mr. Lloyd thought it remarkable that the cases mentioned should have healed so rapidly, considering what their constitutional disease was. Dr. Eccles pointed out the influence the air of Margate must have had on the course of the cases.

R. Norris Wolfenden.

Lentiagne (Dublin).—*Sarcoma of the Larynx*. "Brit. Med. Jour.," June 1, 1889. Royal Acad. of Medicine in Ireland, Section of Pathology, May 1, 1889.—(Exhibition of specimen, containing chiefly spindle-celled and giant-celled nuclei).
Hunter Mackenzie.

Robinson (London).—*Sarcoma of Right Nasal Cavity*. "Brit. Med. Jour.," June 1, 1889. Metr. Counties Branch, B.M.A., South London District, May 22, 1889.—(Exhibition of case).
Hunter Mackenzie.

Robinson (London).—*Sarcoma of Tonsil*. "Brit. Med. Jour.," June 1, 1889. Metr. Counties Branch, B.M.A., South London District, May 22, 1889.—(Exhibition of case).
Hunter Mackenzie.

Mackenzie, H. W. G. (London).—*Exophthalmic Goitre with Tremors*. "Brit. Med. Jour.," June 1, 1889. Metr. Counties Branch, B.M.A., South London District, May 22, 1889.—(Exhibition of case).
Hunter Mackenzie.

Mackenzie, H. W. G. (London).—*Diphtheritic Paralysis of Anterior Tibial Muscles*. "Brit. Med. Jour.," June 1, 1889. Metr. Counties Branch, B.M.A., South London District, May 22, 1889.—(Exhibition of case).
Hunter Mackenzie.

Boldero, F.—*Horny Growth in the Neck*. "Brit. Med. Jour.," June 29, 1889. Staffordshire Branch B.M.A., May 30, 1889.—(Exhibition of specimen, removed by operation).
Hunter Mackenzie.

Taylor, Seymour (London).—*Myxædema in a Male*. "Brit. Med. Jour.," June 1, 1889. Metr. Counties Branch, B.M.A., South London Branch, May 22, 1889.—(Exhibition of case).
Hunter Mackenzie.

Nichol (London).—*Membranous Casts of Trachea and Bronchi of unusual size, from a Case of Diphtheria with Tracheotomy*. "Brit. Med. Jour.," May 25, 1889. Path. Soc. of London, May 21, 1889.—(A card specimen).
Hunter Mackenzie.

Targett (London).—*Sarcoma of Oesophagus*. "Brit. Med. Jour.," May 25, 1889. Path. Soc. of London, May 21, 1889.—(A card specimen).
Hunter Mackenzie.

Link (Lemberg).—*Treatment of Empyema of the Antrum of Highmore*. "Wiener Med. Woch.," 1889, No. 52. (The author recommends Mikulicz's method of operation).
Michael.

- Wolff** (Frankfort).—*Pharyngitis Chronica*. "Monatssch. für Ohrenheilk.," 1889, Nos. 11 and 12. (A report upon the pathology and treatment of this affection.) *Michael.*
- Suchanek** (Zurich).—*The After Treatment of Operations upon the Naso-pharynx*. "Therapeut. Monats.," Dec., 1889. (A recommendation of energetic antiseptics.) *Michael.*
- Goris** (Brussels).—*Endo-laryngeal Removal of a Subglottic Fibro-myxoma*. "Therap. Monats.," Dec., 1889. (The tumour was removed with Schroetter's guillotine. Only five cases of this kind of neoplasm have been recorded.) *Michael.*
- Ziem—Herzog**.—*Historical Notice on Enuresis Nocturna and Nasal Diseases*. "Archiv. für Kinderheilk.," Band 11, No. 4. (Polemical articles: the former claiming priority.) *Michael.*
- Kafemann** (Königsberg).—*Treatment of Chronic Pharyngeal Catarrh*. "Berliner Klin. Woch.," 1889, No. 40. (A recommendation of nitrate of silver in the treatment of granules.) *Michael.*
- Heisinger**.—*The Treatment of Scarlatinal Diphtheria by Injections of Carbolic Acid into the Tonsils*. "Deutsch. Med. Woch.," 1889, No. 43. (Good results are claimed by the author for this method of treatment.) *Michael.*
- Braun** (Trieste).—*Primary Strumitis—Abscess—Incision.—Cure—with Total Atrophy of a Goitre, which had lasted for Thirteen Years*. "Internat. Klin. Rundschau.," 1889, No. 44. *Michael.*

REVIEW.

Schmiegelow (Copenhagen).—*Asthma considered specially in Relation to Nasal Disease*. London, H. K. Lewis, 1890.

THE author states in his preface that this essay is an English edition of a book published in Danish, in the spring of 1889, and it must be considered as an attempt to show how far diseases of the nose may affect asthmatic attacks, and the end has been kept in view of considerably modifying the too exaggerated opinions of Prof. Hack.

The work opens with an historical review of asthma theories and of the reflex neuroses of the nose. The physiological reflexes of the mucous membrane of the nose has a chapter devoted to it. Clinical experiences as to the relationship between asthma and nasal diseases occupy another chapter, the symptoms implying a connection between the asthmatic attacks and diseases of the nasal cavity are discussed, and the treatment of these affections concludes the work. While the historical aspect of the question and the views of other writers are reviewed, we cannot help noticing the entire absence of any reference to the *brochure* of Morell Mackenzie upon hay asthma, a work, which from its writer's position and from its contents, is surely worthy of mention. The omission may be accidental, but looks intentional. The clinical experience of the author, as recorded in a number of cases in the body of the book, are, perhaps, the most instructive portion of the work. The cases seen by the author comprised 294 cases of chronic rhinitis and 75 cases of polypi seen among private patients, with 220 cases of chronic rhinitis and 64 of nasal

polypus seen at the hospital clinic. Of the 514 cases of chronic rhinitis 40 had asthmatic symptoms (about 8 per cent.); of 139 patients with nasal polypi 31 had asthma, or about 22 per cent.; of the 71 asthmatic patients 60 had typical asthma and 11 only asthmatic symptoms. There is a difference statistically between private and hospital patients, as shown in the fact that while 30 per cent. of private patients with nasal polypi had asthma, only 11 per cent. of hospital patients suffered this complaint, and while 12 per cent. of private patients with chronic rhinitis had asthma, only 3 per cent. of hospital patients were similarly affected.

As regards sex, asthma occurred in 10 per cent. (25 out of 238) men, and only in 6 per cent. (15 out of 276) women. As to asthma occurring with chronic rhinitis, two patients were twelve, and two fifty-three years of age, the rest being between these two ages. In one case, asthma was accidentally developed by syringing the nose with a 1 per cent. solution of sublimate. In another case, asthmatic attacks for a few days immediately following cauterisation of the nasal septum with chromic acid were produced. In most cases the asthma occurred at night after the patient had fallen asleep. One patient had violent asthma every time nitrate of silver was blown into the nose, and every local treatment of the nasal mucosa made the asthma worse.

In some cases the asthma would change from attacks during the night to attacks during the day. As to asthma with nasal polypi, 25 per cent. occurred in men (19 out of 76), and 19 per cent. in women (12 out of 63). The ages at which it occurred were, in the youngest, nineteen, in the oldest, seventy. In most cases the asthma was nocturnal. In one girl a violent attack could be produced by smelling fried fish, and in another by insufflations of nitrate of silver. As to the results of treatment, only fifty cases could be regarded statistically; of these thirty-two were cured, eleven improved, and seven gave no result whatever. Amongst these thirty-two patients, were no less than seventeen recurrences, and in six of the eleven cases improved, there were recurrences. Some difficulty may be felt in accepting the word "cured" as applicable to these cases, but recurrence was caused by a fresh outbreak of nasal symptoms, and renewed local treatment cured the condition again. Some cases of this character were at last definitely cured, others are still under treatment. As to the cases which resisted treatment, the nasal condition may have been an accidental accompaniment of the asthma, or the condition may have lasted so long that chronic bronchitis or emphysema had become developed, or the treatment may have been too short to overcome the irritability of the mucous membrane.

Before the nose is *cured* it is impossible, Schmiegelow remarks, to draw any decided conclusions as to the effect which an eventual treatment of the nose may have upon asthma. "Sometimes the treatment has been given up too soon, before the irritative phenomena in the nose had entirely disappeared, and sometimes only the local treatment of the nose has been considered, and it has been forgotten that asthma, being an expression of a complaint of the central nervous system, as a rule also requires a general strengthening treatment. Many medical men have on this account been disappointed in their sanguine hopes, which were partly caused by the enthusiastic accounts which appeared as soon as this question was taken up, and they have in turn gone to the other extreme, and placed themselves entirely in opposition to the "question." Patient and continuous treatment may restore the mucous membrane to its primary condition. A mere removal of obstructing polypi is insufficient, and sometimes even makes the asthma worse by exposing a larger area of mucous membrane to outside irritation. An osseous connection between the septum and lateral wall (lower turbinated) sometimes retards any improvement until it is remedied.

In most of these asthmatic persons there was no general condition of nervousness, such as hysteria, etc., though long-standing asthma, with its production of insomnia, may lead to considerable general nervousness. In a few cases the onset of symptoms could be traced to some severe illness. In the majority of cases the pathological reflex irritability of the respiratory centre must be supposed to have originated in a different manner, and usually after catarrh of long standing, during which period the patients have suffered from violent sneezing, which have at last affected the reflex irritability of the medulla oblongata. A special predisposition to asthma has, however, to be assumed. The symptoms which imply a connection between asthmatic attacks and diseases of the nasal cavity are discussed by Schmiegelow, and some useful rules for treatment are given.

We can cordially recommend the book, especially to the general practitioner. It is well and easily written, with few faults in the English, is not too long, and is a useful and scientific contribution to a question which has agitated the minds of rhinologists ever since the production of Hack's work. Those in general practice cannot fail to derive much help from the work—assistance which is often sorely needed in a class of case which, apparently simple, is distressing enough to the patient, and often baffles all ordinary therapeutic measures. The educated physician need not be ashamed to acknowledge that he can read, mark, learn, and digest, and profit from such rhinological works as this.

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Ipecac. 1 to 10 gr.
Antifebrin, 2 gr.
Antimony Tartrate, 1/50 gr.
Antipyrin, 5 gr.
Apomorphine Mur., 1/50 gr.
Arsenious Acid, 1/100 and 1/50 gr.
Atropin Sulph., 1/100 gr.
Belladonna Tinct., 1 min.
Bismuth Sub-nit., 5 and 10 gr.
Blue Pill.
Borax, 5 grs.
Caffein Citrate, 1 gr.
Calcium Sulphide, 1 to 10 gr.
Calomel, 1 to 10 and 1 gr.
Capsicum Tinct., 1 min.
Cascara Sagrada Ext., 2 gr.
Cascara Sagrada Ext. (dry), 1 gr.
Eucalyptin, 1 gr.
Nux Vomica Ext., 1/16 gr.
Cathartic Comp. U. S. P.
Charcoal, 5 gr.
Chloral Hydrate, 5 and 10 gr.
Cocaine, Potash and Borax (Voice).
Crete Aromat. cum Opio Pulv., 5 gr.
Digitalis Tinct., 1 min.
Digitalin, 1 to 10 gr.
Dover Powder, 1/4 and 5 gr.
Eucalyptin Resin, 1 to 3 gr.
Hydrarg. cum Crete (Grey Powder), 1 to 3 gr.

Hydrarg. Iod. Rub., 1/20 gr.
Hydrarg. Iod. Vir., 1/8 gr.
Hydrarg. Perchlor., 1 to 100 gr. { 1 gr.
Hydrarg. Subchlor. (Calomel), 1 to 10 and
Hyoscyamus Tinct., 1 min.
Ipecac. and Opium (Dover Powd.), 1/2 and 5 gr.
Ipecac. Powder, 1/10 and 5 gr.
Iron and Quinine Cit., 3 gr.
Laxative Vegetable.
Lithia Carbonate, 2 gr.
Manganese Dioxide, 2 gr.
Morphine Sulph., 1 to 20 and 1/8 gr
Nitro-Glycerine.
Nux Vomica Tinct., 1 min.
Opium Tinct. (Laudanum), 2 min.
Papain, 2 gr.
Pepsin, Pure (Fairchild).
Pepsin Saccharated, 5 gr.
Peptonin.
Phlores Mur., 1/20 gr.
Phenacetin, 5 gr.
Podophyllin Resin, 1/4 gr.
Potash Bicarb., 5 gr.
Potassium Bromide, 5 and 10 gr.
Potash Chlorate, 5 gr.
Potash Chlorate with Borax, 5 gr.
Potash Nit. (Sal Prunella), 5 gr.
Potash Permanganate, 1 and 2 gr.
Potassium Iodide, 5 gr.
Quinine, 1 to 10, 1/2, 1, 2, 3 and 5 gr.
Quinine Sulphate, 1 gr.
Iron Hypophosphite, 2 gr.
Acid Arsenious.
Strychnine Sulphate, aa 1 to 3 gr.
Saccharin, 1 to 100 gr.
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Salicin, 5 grs.
Salol, 5 gr.
Santonin, 1/2 gr.
Soda Bicarbonate, 5 gr.
Soda-Mint (Soda, Ammon., Ca and Mint).
Soda Salicylate, 3 and 5 gr.
Strophanthus Tinct., 2 min.
Sulphonah, 5 gr.
Sulphur Comp. (Dr. Garrod's formula), 2 min.
Tannin, 2 1/2 gr.
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THE
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The Editors do not hold themselves responsible for opinions expressed by contributors.

CHRONIC RHEUMATIC SORE THROAT.

BY E. FLETCHER INGALS, A.M., M.D.,

Professor of Diseases of the Throat and Chest, Women's Medical College, and
Professor of Laryngology in Rush Medical College, Chicago, Illinois.

Synonym.—Chronic rheumatic laryngitis.

Definition.—This is a painful affection of the throat, chronic in character, but varying much from time to time in severity, and attended by only slight physical changes in the parts involved. It usually affects the larynx, and, therefore, it has been described as rheumatic laryngitis; still, in many cases, it involves the fauces, the hyoid bone, and, possibly, the trachea, and it sometimes does this without involving the larynx at all; therefore, the term chronic rheumatic sore throat is preferable. It is comparatively frequent, and has doubtless existed from time immemorial, but I have been unable to find any description of it prior to that which I gave at the Ninth International Medical Congress, held in Washington in 1887. The affection occurs mainly during the spring and fall of the year, but we also observe it during the winter, and there are occasional cases in which it continues through the summer months. It is more frequent in men than in women. All the cases that I have seen have been in adults from twenty to sixty years of age. It occurs among all classes with the same impartiality as rheumatism of other tissues.

Anatomical and Pathological Characteristics.—There are no anatomical characteristics, but usually there is slight congestion, circumscribed in character but variable.

Etiology.—It is due to the same causes as muscular or articular rheumatism.

Symptomatology.—It comes on insidiously in many cases, but in others suddenly; usually, however, the patient will have been complaining for months before he applies to the laryngologist for relief. Most of the patients who have come to me have previously consulted several

physicians, and have received almost as many different diagnoses, but all have feared either tuberculosis, syphilis, or cancer, many of them having a fixed dread that they are suffering from cancer. The general health is not impaired. The patient complains simply of a localized pain, which is frequently referred to the cornu of the hyoid bone, and I have observed it more often on the right than on the left side. Next in frequency it is felt in the larynx, generally upon one side only. It may be felt, however, in the trachea, the tonsils, and sometimes in the side of the base of the tongue. This pain is increased by pressure in nearly all cases, perhaps in all, and it may be increased by phonation or deglutition, but it often completely disappears while the patient is eating. In any case it is liable to shift its position from time to time, though frequently it is persistent for a long period in one locality. Sometimes, instead of an actual pain, the person will complain simply of a sensation of fulness or swelling of the part, or a feeling of dryness, itching or burning; or it may simply be a sensation of discomfort which he cannot well describe. Usually the voice is not affected, but it is common for these patients to complain of fatigue after using it a short time. We find no constitutional symptoms, no fever, and the pulse is not quickened excepting from alarm. Usually there is no cough, but in some cases, especially where the larynx is involved, a hacking and annoying cough is a symptom. The digestive organs may act perfectly, but ordinarily we find the tongue more or less covered with a white or yellowish-white coating, and although the appetite is usually good, the patient is often troubled with eructations of gas from the stomach, and with flatus. The bowels are apt to be constipated. Upon laryngoscopic examination, we may find localized congestion confined generally to a small spot in the region of the pain, and there is sometimes slight swelling. We find, however, that the congestion diminishes or disappears, or changes to other localities from time to time, therefore there is nothing characteristic in the appearance of the parts.

Diagnosis.—The affection is liable to be mistaken for neuralgia, for enlarged glands at the base of the tongue, for enlarged veins, for chronic follicular tonsillitis or glossitis, for syphilitic or tubercular sore throat, for tobacco sore throat, or for cancer. The essential points in the diagnosis are the uncomfortable sensations of pain, which change usually with the changes in the weather, a rheumatic diathesis, and the absence of any distinct physical signs.

From varicose veins, enlarged glands at the base of the tongue, and from follicular tonsillitis or glossitis, all of which sometimes present similar symptoms, this disease is to be diagnosed by a careful inspection of the part, by the course of the disease, and by the results of treatment. By inspection we may at once ascertain whether the veins or the glands at the base of the tongue are enlarged; but, unfortunately, we cannot tell whether enlargement of the glands, or a varicose condition of the veins is the cause of the patient's symptoms. Some patients have these conditions, and yet suffer no inconvenience whatever, while in others they give rise to serious discomfort. Therefore, if we find varicose veins or enlarged glands at the base of the tongue, with evidence of what seems rheumatic pain in this locality, we will have to remove these conditions

before we can exclude them as the cause of the patient's discomfort. If the patient has a rheumatic diathesis, which can be ascertained by enquiry, it is a point in favour of the diagnosis of rheumatic sore throat.

In follicular tonsillitis and glossitis the signs, upon inspection, are characteristic, and we may usually take it for granted that the symptoms of which the patient complains come from these diseases. We might possibly be mistaken in cases of this sort, but the results of treatment would clear up the diagnosis. Sometimes the diagnosis is extremely difficult, but in the majority of cases, having inquired carefully into the history and excluded the affections I have spoken of, we may make an accurate diagnosis.

From syphilis this affection may be distinguished by the history and physical signs. In the early stage of syphilis, and in the secondary and tertiary attacks of the disease, there are in nearly every case physical signs which are characteristic, which signs never occur in the disease under consideration. There are occasional instances of syphilitic sore throat where the signs are not characteristic, but in these I have never known the patient to complain of the persistent pain or discomfort which characterises the rheumatic affection, and I have seen no reason for confounding the two diseases.

From tuberculosis we may distinguish this by the absence of the constitutional symptoms in the rheumatic affection, and their great prominence in the tubercular disease; the moderate pain or discomfort in the rheumatic affection, and the severe pain in the tubercular disease: by the absence of ulceration in the former, while in the latter we find superficial ulcerations, which in many cases extend over a considerable part of the region in which the patient complains of pain, while in occasional instances there is deep ulceration.

From tobacco sore throat it may be distinguished by the history, and by the absence of plaques that appear as if the surface had been brushed over with nitrate of silver. However, there are cases of tobacco sore throat in which we find no physical signs, but in these the patient usually complains of a burning sensation in the part that is relieved soon after the tobacco is discontinued. If we find that the patient is an habitual user of tobacco, and stopping its use improves his symptoms at once, and if there are no symptoms of rheumatism in other parts of the body, there will be no difficulty about the diagnosis.

From neuralgia it is often difficult to distinguish the rheumatic sore throat. The presence of slight congestion or swelling is of considerable value in the diagnosis, for in neuralgia there are not likely to be any of these local signs. In most cases of rheumatic sore throat pressure increases the pain, while in neuralgia it does not increase it, but may relieve it. In rheumatic sore throat, changes of the weather from fair or clear to cloudy or damp, almost always aggravate the symptoms, while in neuralgia they have but little effect. In neuralgia of the throat it is common for the patients to complain of pain in the latter part of the day when they begin to get tired, or after any exertion which makes them fatigued. In rheumatic sore throat the pain may be worse in the morning, and is not particularly increased by fatigue.

From cancer we distinguish it by the physical signs. In all cases of cancer which I have met there have been early and distinct physical changes, with more or less induration, gradually increasing irregular swelling, and finally deep ulceration. These changes do not occur in rheumatic sore throat. In cancer of the throat the patients are not likely to experience pain long before some of these physical alterations occur. In the rheumatic trouble pain is the essential symptom, and the physical changes are not marked.

Prognosis.—Unless relieved by treatment we may expect these cases to continue for several months, or even years, but there is no danger so far as life is concerned.

Treatment.—In treating these cases our first attention should be directed to prophylaxis. With this in view we must be careful that the patient is well clothed and housed, and that he is not exposed to undue changes of temperature or to wet or damp atmosphere. Rheumatic patients should always wear either wool or silk next to the body throughout the whole year, light in summer and heavy in winter, and it should be worn both night and day. They should be careful that all the excretory organs of the body perform their functions properly. They should eat sparingly of such albuminous substances as meat or eggs, and should live largely on vegetables or fruit. The vegetable acids are often advantageous. Whatever is eaten, it is especially important that digestion be perfectly performed, so that the system be not poisoned by the formation of ptomaines.

For the local treatment of the disease sedative or stimulant applications may be made with almost equal chances of relief. Applications of the tincture of aconite to the painful spot four or five times a day will sometimes give considerable relief. I have frequently found relief from the application of stimulants, as, for example, solutions of sulphate of zinc.

The application of morphine in solution or in powder is sometimes a source of much comfort to the patient. I have derived more benefit, I think, from the application of a spray composed of morphine, carbolic acid and tannic acid, in glycerine and water, than from anything else. This solution consists of 4 grains of morphine, 30 grains each of carbolic and tannic acids, and 4 drachms each of glycerine and water. I apply it in full strength, and frequently give it to the patient in a solution of half this strength, to be used daily in the form of spray. In some cases the strong tincture of iodine gives relief; in others, the application of a 60 grain solution of nitrate of silver has proved beneficial.

These applications do good on the same principle that blisters sometimes relieves a rheumatic joint. The most important part of the treatment is the internal medication. For this purpose salol, the salicylate of sodium, iodide of potassium, guaiac, phytolacca, and the oil of gaultheria may, one or all, be used at different times with benefit. The salicylate of sodium in doses of $7\frac{1}{2}$ to 10 grains four or five times a day; the oil of gaultheria in doses of 15 minims three or four times a day; the ammoniated tincture of guaiac in doses of a teaspoonful three or four times a day, or the resin of guaiac in lozenges, frequently repeated, are of considerable value. But I have derived the most benefit from the extract

of phytolacea and salol, combined with a laxative, and sometimes with the iodide of potassium, or with the bromide of potassium for its sedative effects. I give the extract of phytolacea in doses of from 2 to 4 grains, and salol in the same dose, or sometimes in doses of 10 grains. Tincture of bryonia and of cimicifuga have been claimed to be valuable remedies in the treatment of rheumatism. I have used them both, apparently with slight benefit in some instances, but the obstinate cases have done better under the phytolacea and salol, with the occasional use of the other remedies already suggested.

I have records of over fifty well-marked cases of this disease observed during the past four or five years, from which I deduced what I have said in this paper regarding the symptomatology, prognosis, and treatment.

INSTRUMENTS AND THERAPEUTICS.

Trestel.—*A Modified Lucæ Tonsillotomy.* Laryngologische Gesellschaft zu Berlin, Jan. 10, 1890.

THE author exhibited this instrument.

Michael.

Clairborne, J. H.—*A Speculum for Applying Caustics to the Deep Structures of the Nasal Cavities.* "The Med. Rec.," Aug. 31, 1889.

THIS is a tubular speculum of oval shape, and tapering slightly from base to apex. It can be pushed into the nostril, and the author has found it valuable in applying caustic to the posterior ends of the inferior turbinated bones.

B. J. Baron.

Hooper, F. H.—*Cold Snare and Écraseur combined.* "Annales des Mal. du Larynx," etc., Jan., 1890.

AN instrument, having the form of the Jarvis snare, but having besides upon its shaft a screw, which allows it to be converted into an écraseur when the parts to be removed are too hard to be torn away.

Joal.

Rethi (Wien).—*A New Wire Conductor for Nasal Polypi and Polypoid Degenerated Posterior Ends of the Turbinateds.* "Wiener Klin. Woch.," No. 4, 1890.

THE anterior end of the instrument is movable. It is just as serviceable for use with the cold wire as the galvano-cautery.

Michael.

Schedemann.—*Instrument for Operation upon Sub-Glottic Tumours.* "Berl. Klin. Woch.," No. 3, 1890.

A LARYNGEAL forceps, with an angular termination, so that they can be introduced under the glottis, and the surgeon can operate in the sub-glottic region.

Michael.

Lange.—*Rare Case of Idiosyncrasy towards Tannic Acid in External Use.* "Deutsch. Med. Woch.," No. 1, 1890.

A PATIENT, twenty-nine years old, was brushed with tannic acid on account of chronic pharyngitis. The brushing was followed by extremely acute œdema of the uvula, and then by an exanthema like urticaria over the whole body. The patient related that he had had the same thing happen some time ago, when another physician had applied tannin externally. The author also relates a case of idiosyncrasy towards iodine. The patient brushed with a solution of iodine and iodide of potassium, had a few minutes later a very severe coryza, lasting a whole day.

Michael.

Ruault and Berlioz.—*Sulphoricinic Acid, and its Employment as a Solvent Vehicle for some Medicaments useful for Topical Application.* "Archives de Laryngologie," Dec. 1889.

SULPHORICINIC naphthol, 10 per cent., employed pure as a direct topical application, or in the form of an emulsion to the nasal cavities is very useful in the treatment of ozæna, and has also given good results in ulcerative tuberculosis as a laryngeal application. Sulphoricinic phenol has been especially useful without addition of water. This preparation presents the considerable advantage of being without caustic action upon the mucous membrane of the upper air passages, even when crystallised phenic acid exists in the proportion of 40 per cent. Applied to the tongue it produces only a sensation of slight warmth, and the tonsils and pharynx may be brushed with it without marked pain to the patient. For local energetic applications after cocainisation in ulcerative laryngeal tuberculosis, sulphoricinic phenol, 40 per cent., is proved of great use, and the results obtained with it have been superior to naphthol. Ruault has also employed sulphoricinic creosote and salol with equal success. *Joal.*

Editor, British Medical Journal (London).—*Action of Cocaine on the Body Temperature.* "Brit. Med. Jour.," July 6, 1889.

AN annotation, in which the fact is mentioned that not only does cocaine increase the body temperature, but it is the most energetic substance yet known that possesses this action. It causes the development of an actual febrile state by acting on the cerebral heat centres. *Hunter Mackenzie.*

Dabney, S. G.—*Cocaine in Eye, Ear, and Throat Practice.* "The American Prac. and News," Aug. 3, 1889.

THERE is nothing new in that part of this paper that concerns us especially. Like all of us who are doing throat and nose work, we use, and with much comfort to ourselves and our patients, cocaine, and we rarely have any disagreeable after effects of its use. The author warns us against allowing a patient who has had the drug applied to the throat to swallow too soon, as food is apt to pass into the larynx. He considers it the best pain-quelling remedy in phthisis laryngea. *B. J. Baron.*

Robertson (Ventnor).—*Hot-air Inhalations in Pulmonary Tuberculosis.* "Brit. Med. Jour.," Oct. 5, 1889. Southern Branch, B.M.A., June 27, 1889.

FOUR cases had been treated. Huskiness of the voice was induced in

two cases, which soon passed off. In another case with basic phthisis and inter-arytenoid ulceration of the larynx, the treatment had to be discontinued on account of aggravation of the laryngeal disorder. The results were inconclusive, although it was shown that the treatment was not seriously detrimental, and in two cases of pyrexial disease some advantage seemed to accrue from it. *Hunter Mackenzie.*

Silk, J. J. W. (London).—*Anæsthetic Apnœa and its Correction: a Clinical Study.* "Lancet," Feb. 16, 1889.

THE author opposes the conclusions of Howard on this subject, and defends the method of drawing forward the tongue (*vide* JOURNAL OF LARYNGOLOGY, Vol. III., pp. 293, 295, and 469). *Hunter Mackenzie.*

DIPHTHERIA.

Editor of Lancet (London).—*Croup or Diphtheria.* "Lancet," Apr. 6, 1889.

IN this article the editor points out that an epidemic of diphtheria in Camelford was for a long time undiscovered owing to the causes of death in some cases having been certified as croup, in others as diphtheria.

Hunter Mackenzie.

Caillé.—*Personal Prophylaxis in Diphtheria.* "The Med. Rec.," Oct. 12, 1889.

NASAL insufflations and gargling of non-irritating antiseptic liquids such as salt, alum, boric acid, permanganate of potash, chlorate of potash, and Labarrague's solution in water; removing large tonsils, and stopping or extracting decayed teeth are recommended.

B. J. Baron.

Earle, C. W.—*The Necessity of Prolonged Rest after some Attacks of Diphtheria.* "The Med. Rec.," Oct. 12, 1889.

KEEPING a patient in bed for two or three weeks after all symptoms are over is, in many cases, to be recommended, and is imperatively necessary where symptoms of paralysis have shown themselves. *B. J. Baron.*

Mulhall, J. C.—*Local Treatment of Diphtheria.* "New York Med. Jour.," Sept. 21, 1889.

THIS paper was read before the American Laryngological Association. The child lies in a crib, one side of which is open, and the face of the patient is turned towards a vessel suitably placed to receive a solution of carbolic acid and compound tincture of iodine, with or without boracic acid, which is made to thoroughly flush the back of the throat by being boldly squirted into the back of the mouth by means of a household syringe, armed with the rectal tip if the child is fractious. This is said not to find its way into the larynx, as the tongue reflexly arches, pushes

back the epiglottis, and closes the orifice. A tumblerful of solution is used at each irrigation, and it is due every hour, when the child is awake, and it must never be allowed to sleep three hours before it is repeated. The nose is to be washed out by a special syringe, with bulbous and blunt-ending nozzle, two teaspoonsful of the same solution being used for each nostril, after which an antiseptic powder, composed of finely-powdered sulphur, iodoform, or salicylic acid, highly diluted, and with a little cocaine to prevent irritation. Papain is said to be a good solvent. Laryngeal diphtheria in children can only be treated by inhalation, which the author thus manages : half a gallon of water is put into each of two vessels ; these are placed on a gas stove in the sick room, and into each of them is poured half-a-pint of juice tar and a tablespoonful of oil of turpentine. The tar is sufficient for the whole case, but the turpentine must be renewed every hour, and the steam is generated night and day.

In the discussion that ensued :—

Dr. GLASGOW uses peroxide of hydrogen locally, and perchloride of mercury and benzoate of soda internally.

Dr. BRYSON DELAVAN uses perchloride and cyanide of mercury.

Dr. DALY prescribes large and oft-repeated doses of calomel, untritured, mixed with sugar, and floated on a little water.

Dr. ALLEN uses trypsin, applied on cotton wool. *B. J. Baron.*

Schendel.—*The Treatment of Diphtheria.* “Berl. Klin. Woch.,” No. 6, 1890. THE author recommends the internal use of *Tinct. Rusci. Co.* He has tried it in forty-three cases with good results. *Michael.*

Cnopf.—*Diphtheria in the Children's Hospital at Nürnberg in the year 1888.* “Münch. Med. Woch.,” Nos. 7 and 8, 1890.

STATISTICAL communications of 83 cases, of which 39 were tracheotomised, with 30 per cent. cures. On the eighth or ninth day the cannula could be removed in the cases ending in cure. In two cases the cannula had to be worn a longer time. In one of these there was a granular stenosis which compelled the retention of the cannula for twenty-seven days. In the second case the complication was perichondritis of the cricoid cartilage. A necrotic piece of the cartilage was removed, and on the nineteenth day respiration was free. In all cases of tracheotomy Piniaczek's bronchial spoon and bronchial forceps are applied for removal of membranes from the bronchi. In the fatal cases the post-examination proved the efficacy of this method. The parts treated with these instruments were free from membrane in the greater number of the cases. The complications of the tracheotomised cases were: in seven diphtheria of the wound, in eight septic infections of the wound, such as erythema, erysipelas; seventeen times inflammations of the respiratory organs; twelve times nephritis, and once convulsions. Death occurred in the fatal cases mostly on the seventh or eighth day. *Michael.*

Fabre.—*Subcutaneous Emphysema of the Neck and Chest in a severe Case of Diphtheria.* “Gaz. Méd. de Paris,” Sept. 28, 1889.

THE case of a patient with diphtheria who at the end of two days

presented extensive emphysema. At this time the larynx was not invaded. The patient rapidly succumbed. The emphysema was due to efforts at vomiting. *Joal.*

Caillé.—*Membranous Croup (Laryngo-Tracheitis) in a Girl Twelve years of Age—Tracheotomy—Recovery.* "The Med. Rec.," Oct. 12, 1889.

NOTHING new in this paper.

B. J. Baron.

MOUTH, TONGUE, TONSILS, PHARYNX, &c.

Black (Brighton).—(1) *Ulcer Beneath the Left Eyelid, and Another occupying Almost the Whole of the Lower Lip*; (2) *Rodent Ulcer of the Cheek*; (3) *Ulcer of the Lower Lip*; (4) *Lupus*. "Brit. Med. Journ.," Oct. 26, 1889. Brighton and Sussex Med. Chir. Soc., Sep. 5, 1889.

(1) This was syphilitic. There was no induration about the sores. The glands in the neck were swollen, hard, and tender. Commencing recovery under iodoform and black wash.

(2) This was of ten years standing.

(3) This was of fifteen to twenty years standing, and had almost healed under resorcin.

(4) This case illustrated the value of treatment by scraping and resorcin. *Hunter Mackenzie.*

Paget, Stephen.—*A Case of Tuberculosis of the Gums and Lip.* "Lancet," Mar. 22, 1890. Med. Society.

THE patient was a woman, aged twenty-six. The disease was first noticed three years ago; it had been scraped, but had since recurred. There were other signs of tubercle present, and there was a family history of phthisis. *R. Norris Wolfenden.*

Rohrer.—*Ptyolite in Wharton's Duct.* "Internat. Klin. Rundschau," No. 2, 1890.

A SWELLING existed, resembling a ranula, together with inflammation under the tongue. The opening of Wharton's duct was filled with a hard, white mass. A ptyolite as large as a nut was extracted, and cure resulted. *Michael.*

Molony, Fitz-James (Porlock, Somerset).—*Obstruction of Wharton's Duct.* "Brit. Med. Jour.," Oct. 26, 1889.

THE cause of obstruction in this case was a fine salivary calculus, forming a cast of the duct. It worked its way out. *Hunter Mackenzie.*

Hayward, John D. (Liverpool).—*Obstruction of Wharton's Duct.* "Brit. Med. Jour.," Oct. 12, 1889.

THE obstruction was caused by the impaction of a fish bone in the duct, unknown to the patient. Great distension of the sub-maxillary gland ensued, and immediately disappeared on the removal of the bone.
Hunter Mackenzie.

Charnley.—*Case of Ranula.* "Brit. Med. Jour.," July 6, 1889. Shropshire and Mid-Wales Branch, B.M.A., June 25, 1889.—(Exhibition of case).
Hunter Mackenzie.

Hutchinson, Jun.—*Salivary Calculus.* "Brit. Med. Jour.," Mar. 22, 1890. THE author showed at the Hunterian Society a small salivary calculus from a woman, aged about thirty-five, who was sent into the hospital as a case of epithelioma of the side of the tongue. There was a hard mass, and as it was in the situation of Wharton's duct, he thought it might be due to a calculus, and on cutting into it he found it was so. A hard fibrous structure of about half an inch in thickness surrounded the calculus, and the glands in the neck were enlarged.

R. Norris Wolfenden.

H. S.—*Profuse Salivation.* "Brit. Med. Jour.," July 27, 1890.

THE author remarks that profuse salivation often depends upon the presence of carious teeth, and disappears on their removal.

Hunter Mackenzie.

Ménard.—*Ulcerative Membranous Stomatitis in Blennorrhagic Individuals.* "Annales de Dermatologie," Sep., 1889.

THE author relates four cases, showing that blennorrhagic subjects may present an ulcero-membranous stomatitis resembling exactly the classical form of the disorder. It evidently arises from microbic infection, and the author proposes researches to demonstrate the presence of the gonococcus in the blood. The affection occurs almost always in the later stages of the blennorrhagia after manifestation of other infectious complications.

Joal.

Barié.—*On Uremic Stomatitis.* "Archives Gén. de Méd.," Nov., 1889.

UREMIA may determine a special affection of the bucco-pharyngeal cavity, which the author terms uræmic stomatitis. Two well defined clinical forms of the disorder exist, pultaceous erythematous, and ulcerative stomatitis. The stomatitis is followed by a grave general condition, the adynamia is profound, and is aggravated by the incessant pyalism, which in these patients is very abundant. Ulcerative stomatitis is of serious prognosis, the ulcers may extend, leading to considerable loss of substance. Uremic stomatitis is probably due to elimination of excessive amounts of the urinary poison by the bucco-salivary glands. A previously existing defective condition of the buccal mucosa (bad dentition, abuse of tobacco) favours the appearance of the affection.

Joal.

Schadewaldt.—*Soer of the Mouth.* Laryngologische Gesellschaft zu Berlin, Jan. 10, 1890.

THE author has observed a case where membranes formed upon the

pharynx and epiglottis consecutive to soor of the mouth. Examination proved them to consist of mycosis leptothricia, and he proposed for this disorder the term pseudo-diphtheria.

B. FRAENKEL did not approve of the term proposed. *Michael.*

Larrabie.—*Tumours of the Glands of the Buccal Mucous Membrane.* "Soc. de Chir.," Jan. 15, 1890.

THESE tumours observed in adults develop upon the palatine arches, or vault, and on the internal aspect of the cheeks and lips. Their size varies from that of a bean to a hen's egg, their shape is rounded, and their consistence firm. Their development is slow, and they never present any ulceration of the surface. These tumours have hitherto been regarded simply as hypertrophies of the salivary glands disseminated in the substance of the buccal mucous membrane, and they have been classed with the adenomata. They consist histologically of mixed epithelium. Their innocence is relative, they may submit to carcinomatous degeneration, and be propagated to a distance, and even recur after ablation. It is therefore necessary to thoroughly eradicate them as early as possible.

Joul.

Butlin.—*Two Cases of Glandular Tumour of the Tongue.* Clinical Soc., "Brit. Med. Jour.," Mar. 8, 1890.

THE author gave an account of two female patients who had been under his care on account of a prominent tumour on the back of the tongue, immediately in front of the epiglottis. The tumour, in the first case, was about as large as a hen's egg. It was shelled out, after division of the mucous membrane, with a finger and a scoop. Examination showed it to be a glandular tumour, containing cysts. The removal was not complete. Recurrence took place, but the recurrent tumour did not thrive, but there had been no necessity for a further operation. In the second case the growth was not so large. It was removed with the galvano-cautery, and exhibited the same structure as the tumour in the first case. In this case, again, the removal was not complete, but the patient had been seen lately, several months after the operation, and there appeared no need for further treatment. The author referred to all other cases of the same character which had been found in surgical literature; showed how they had all occurred in females, had, with one exception, precisely the same seat in front of the epiglottis, and presented the same structure. Two points of special interest were commented on. The success of partial operations was illustrated, not only by the present cases, but by a case which was treated by Mr. Rushton Parker more than ten years ago. The origin of the growths was probably, as suggested by Dr. Bernays and Mr. Bland Sutton, foetal. The microscopic structure was not that of the normal glands situated beneath the mucous membrane at the back of the tongue, but resembled very closely that of the thyroid gland.

THE PRESIDENT said he had not seen any cases of the kind. They were certainly rare. But it was as well to know that diseases of the kind existed, which might be removed effectually in this way.

Mr. BOWLEY said that the appearance of the tumours themselves, and their microscopical characters, rather negatived the idea that they had to do with the thyroid gland. The cysts in these tumours contained a thin mucoid fluid, not a thick colloid fluid such as was contained by cysts in the thyroid. The tumours also were found microscopically to be composed of tubes lined with columnar epithelium; whereas the tumours which resembled the thyroid contained follicles, not tubes. He thought these tumours were probably derived from the follicular glands at the back of the tongue.

Mr. BUTLIN, in reply, regretted the absence of Mr. George Stoker, as he had pictures of two tumours exactly like those of these cases. He said that the cysts in a large thyroid tumour contained fluid which was so thin that it might be drawn through a cannula; it was not of a colloidal nature.

R. Norris Wolfenden.

Molenes, Paul de.—*Eczema of the Tongue.* "Archives de Laryngologie," Dec., 1889.

UNDER this title the author includes the affections already described by authors under the name of lingual pityriasis, lingual intertrigo, lichenoid condition of the tongue, geographical tongue, desquamative syphilis of the tongue, marginal exfoliative glossitis, lingual psoriasis. As to etiology, Molenes maintains that just as in general eczema, diathesis plays an important rôle, and affections of the stomach which favour the production of acidity favour its occurrence. Syphilis is also a predisposing cause, but lingual eczema cannot be considered as a manifestation of syphilis, and frequently treatment with mercurials or iodides leads to an exacerbation of the symptoms.

Joul.

Besnier.—*Superficial Eczema of the Tongue.* "Clinique de l'Hôpital St. Louis," Feb., 1889.

THIS affection is generally called marginal exfoliative glossitis, and offers the following characteristic features:—

1. The tongue is covered with a whitish coating which covers the papillae, the projection of which is more prominent than usual.
2. At many spots on the superior surface or edges, rosy-red areas are seen, the periphery of which is clearly marked by an edge slightly elevated, and whitish in colour.
3. The sublingual veins are commonly very prominent.
4. There is very slight hyperæsthesia at the region of the red spaces.

According to Besnier this disease is of eczematous nature, the proof of which is the absolutely characteristic alternations of the lingual lesion in the developments of concomitant eczema of the scalp or body.

Joul.

Blumer.—*Epithelioma of Tongue.* "Brit. Med. Jour.," Mar. 22, 1890. Brit. Med. Ass., Staffordshire Branch.

THE author related a case of epithelioma of the tongue in a man, aged sixty-four. The disease involved the whole of the right side of the organ, with pus infiltrating the left half. The growth had been rapid, and was caused by the irritation of a jagged tooth. The whole tongue was

removed by scissors from the cavity of the mouth, to facilitate which an incision was carried through the angle of the mouth on the right side, as the tongue was much bound down. Hæmorrhage was arrested by pressure forceps. The man made a rapid recovery, and could articulate sufficiently well to make himself understood. *R. Norris Wolfenden.*

Fourrier.—*Glossitis and Ulcer of the Tongue in a Diabetic.* "Rev. Gén. Thérapeutique et Clinique," Jan. 23, 1890.

THE case of a diabetic patient whose urine contained thirty grammes of sugar, and who was affected with glossitis and superficial abscess of the tongue, upon which ulceration followed. The author thinks that the condition must be referred to the diabetic state. *Joal.*

Rivière.—*A Case of Pedunculated Polypus of the Tonsil.* "Annales des Mal. du Larynx," etc., Dec., 1889.

THE pedicle of the polypus was inserted behind the right anterior faucial pillar, projected under the effect of an attack of coughing, and assumed a clubbed shape. Microscopically, the polypus was proved to be composed chiefly of connective tissue. *Joal.*

Vidal.—*Importance of Deep Adenitis in Tonsillar Chancre.* "Clinique de l'Hôpital St. Louis," Mar., 1889.

TONSILLAR chancres have no clear objective characters. Vidal advises minute exploration of the neighbouring glands. If adenitis of the sternomastoid and sub-maxillary regions is present we may conclude in favour of chancre of the tonsil. This adenopathy is always met with in this condition. *Joal.*

Gray, W. M. (Washington).—*Alveolar Sarcoma of Tonsil.* "Internat. Jour. of the Med. Sciences," Feb., 1889.

IN this case the tumour commenced as an (apparently) simple swelling of the tonsil, which soon suppurated. Microscopical examination of a fragment showed the structure of an alveolar sarcoma.

Hunter Mackenzie.

Editor, British Medical Journal (London).—*Sarcoma of the Tonsil.* "Brit. Med. Jour.," July 6, 1889.

AN annotation referring to a paper on the subject by Dr. W. Gray, in the American Journal of the Medical Sciences, February, 1889. The diagnostic difficulty in the early stage, and the rarity of the disease, are specially noted. (A case of this kind is now under observation at the Eye, Ear, and Throat Infirmary of Edinburgh.) *Hunter Mackenzie.*

Meltenheimer.—*On Jacobson's "Algoris Faucium Diphtheritica."* "Deutsch. Med. Zeit.," No. 18, 1890.

THE author describes two cases of mycosis pharyngis in which he found the leptothrix buccalis in portions of the tonsils removed. Both cases were cured by brushing with nitrate of silver. [There is no reason to give to this affection, first described by Heryng and B. Fraenkel, the name of an author who has contributed nothing to its knowledge further than a general report to Volkmann's Vorträge (Abstractor).] *Michael.*

Dauchez.—*Infectious and Contagious Amygdalitis.* "France Médicale," Dec. 7, 1889.

THE record of twenty-two cases of angina, with infectious characters, observed in less than six weeks in the same quarter. *Joal.*

Jeanselme.—*On the Posterior Pharynx and Tonsil particularly considered as Places of Entry of Infectious Disorders.* "Gazette des Hôp.," Jan. 25, 1890.

AN excellent essay, in which the author maintains that many infectious diseases may enter the system by means of the throat. He reviews the facts known as to chancre of the tonsil and tuberculosis of the pharynx, the mode of development of actinomycosis, of diphtheria, gangrenous angina, angina Ludovici, and the connection of the infectious tonsillitis with arthritis, orchitis and ovaritis. *Joal.*

Charnley.—*Lupus of the Eye and Throat.* "Brit. Med. Jour.," July 6, 1889. Shropshire and Mid-Wales Branch, B.M.A., June 25, 1889.—(Exhibition of case). *Hunter Mackenzie.*

Luc.—*Treatment of Granular Angina.* "Rev. Gén. Thérapent. et Clinique," Feb. 5, 1890.

THE author has tried on a number of patients, and has experimented upon himself with the method of treatment advocated by Ruault, which consists in making energetic frictions with tincture of iodine. He reports in favour of the treatment, stating that this method not only causes disappearance of the inequalities of the mucosa in a few sittings, but it modifies them powerfully, exercising a notable curative action on the congestive and catarrhal manifestations. *Joal.*

Fox, Colcott.—*A Case of Stenosis of the Lower Part of the Pharynx, due to Hereditary Syphilis.* Med. Soc., "Lancet," Mar. 22, 1890.

A GIRL of fourteen years presented a perforation of the soft palate, adhesion of the soft palate to the posterior wall of pharynx, shutting off the naso-pharynx, and a button-hole stenosis of the lower part of the pharynx, about the site of the attachment of the epiglottis. The latter was destroyed, and immediately through the hole were seen the openings of the larynx and œsophagus. The larynx was healthy. The gummatous infiltration began three years ago, when there was coughing up of "phlegm," and occasionally blood. There were no other signs of hereditary syphilis in the bones, eyes, teeth, or other parts. On admission she had considerable stridor and attacks of crowing inspiration, culminating in cough. All the infiltration had disappeared under iodide of potassium, and she now swallowed and breathed with great ease. Lesions of the lower part of the pharynx and the larynx occurring as a part of so-called late hereditary syphilis were well known, though they were not at all common. The case was interesting on account of the peculiar features of the stenosis, and its site immediately above the origin of the larynx and œsophagus. *R. Norris Wolfenden.*

Le Fort.—*The Therapeutic Indications of Cicatricial and Cancerous Strictures of the Œsophagus.* "Bulletin Thérapeutique," Jan. 15, 1890.

THE author is strongly averse to gastrotomy. For cancerous strictures he advises the permanent sound, and for cicatricial strictures he recommends dilatation.
Joal.

Terrillon.—*Œsophageal Stricture and Gastrotomy.* Acad. de Médecine, Jan. 21, 1890.

TEN months ago the author performed gastrotomy upon a patient with cicatricial stricture of the œsophagus. Catheterism of the pharynx was impossible before and after the operation. Terrillon could pass a bougie from below upwards and through the fistula. Catheterism then became easy, and the permeability of the œsophagus was completely established. The fistula was then closed, and now the patient can swallow as well as anyone.
Joal.

Longhurst, Arthur W. (London).—*Impaction of a Splinter of Grouse Bone in the Œsophagus.* "Brit. Med. Jour.," Oct. 5, 1889.

THE bone was successfully removed by the use of the expanding probang.
Hunter Mackenzie.

NOSE AND NASO-PHARYNX.

Guye (Amsterdam).—*On Aprossexia; being the inability to fix the attention, and other Allied Troubles in the Cerebral Functions caused by Nasal Disorders.* "Brit. Med. Jour.," Sept. 28, 1889.

THE author has found this complaint mostly in young persons, and especially such as were studying hard or preparing for examinations. He considers it of importance in every case of habitual headache and inability to work, with loss of memory, to examine the nose and naso-pharynx for disease, particularly of the obstructive class.

Treatments consist in the removal of the nasal, or naso-pharyngeal obstruction by the usual methods.
Hunter Mackenzie.

Hill, William (London).—*On some Causes of Backwardness and Stupidity in Children, and the Relief of these Symptoms in some Instances by Naso-Pharyngeal Scarifications.* "Brit. Med. Jour.," Sept. 28, 1889.

THE author's observations confirm those of Dr. Guye (*vide supra*) as to the existence of "aprossexia," especially in children. He considers it not improbable that aprossexia is the outcome of lymphatic and venous stagnation and tension in the structures occupying the anterior part of the cranium from obstructions in the nose and pharynx. He has found in the Earlswood Asylum for Idiots that nearly all the children are mouth-breathers, night-snorers, and the victims of nasal or pharyngeal obstruction. They are all aprossexic.
Hunter Mackenzie.

Woolen.—*Nasal Differentiation.* "The American Prac. and News," Sept. 28, 1889.

THE author treats of the reflex disturbances that arise from nasal troubles, and thinks that hypertrophy of the anterior tips of the inferior turbinated bones, of a pale whitish colour, not unlike washed veal, during the attacks is the essential local factor of hay fever. In spasmodic asthma, mischief is always found in the post nasal region and its environments, and especially is it due to hypertrophy of the posterior tips of the inferior turbinated bones, and occasionally of the middle ones, which either touch the septum, or curl on themselves and touch the outer wall of the nose.

All people with these nasal troubles do not get reflex disturbances, there must be predisposition.

He alludes to Woakes's necrosing ethmoiditis, of which he has seen cases, and thinks that many so-called "sick headaches" are due to nasal obstruction and nerve pressure.

B. J. Baron.

Bishop, Seth S.—*The Abortive Treatment of Acute Catarrh of the Nose and Throat.* "Weekly Med. Rev.," Oct. 12, 1889.

MORPHIA and atrophina are the author's sheet anchors for aborting these diseases, and often it is not necessary to treat the organs locally if the condition be recognised and treated early and energetically. If, however, the nasal attack be advanced or severe, a spray of liquid vaseline alone or in combination with five to ten per cent. of oil of eucalyptus or oil of tar. For the throat glycerole of tannin or glycerine of tannic acid is useful.

B. J. Baron.

Disse—*The Formation of the Nasal Cavity.* "Arch. für. Anat.," No. 29, Suppl., 1889.

DESCRIPTION of the results of the examinations of cadavers of children with reference to the development of the nasal cavity. The report cannot be understood without the illustrations, and must be read in the original.

Michael.

Wright, Jonathan.—*Nasal Bacteria in Health.* "New York Med. Jour.," July 27, 1889.

THIS paper strengthens the position of those who strenuously preach the doctrine that nasal breathing is alone the right one, and that where disease prevents this, it ought, if possible, to be cured. The author experimented on his own nose, and found that it was capable of filtering three-fourths of the known bacterial and fungous contents of the air, when the inspired air passed through the nostrils at the rate of one litre a minute. Nine litres a minute is about the rate at which we breathe, so that the nose and naso-pharynx are by no means perfect filters. A valuable bibliography of the subject accompanies the paper.

B. J. Baron.

Ingals, Fletcher.—*Warty Growths in the Naris.* New York Med. Jour., Sept. 21, 1889.

A GENTLEMAN, forty-six years old, complained of hawking, spitting, and hoarseness, due to pharyngo-laryngitis, with deflection of the septum

and swelling of the inferior turbinated bodies. Later, a warty excrescence of the left nostril was seen, was touched with chromic acid, and cured. After this, others formed on the septum, the turbinated bodies, and the floor of the nostril, and altogether nearly thirty growths were destroyed by means of nitric, and chromic, and carbolic acids, acid nitrate of mercury, and galvano-cautery. Microscopically, they are perfectly non-malignant, ordinary papillomata, or warts. There is no history of syphilis, and they are innocent growths both microscopically and clinically. *B. J. Baron.*

Dana, C. L.—*The Olfactory Nerve: its Quantitative and Qualitative Tests and its Physiological Importance; its Intracranial Course and Diseases.* "New York Med. Jour.," Sept. 7, 1889.

THE author of this paper calls attention to the small share of the rhinologist's attention that has hitherto been devoted to the sense of smell, which is the most delicate sense that we possess, being capable of appreciating the one-trillionth of a grain of mercaptan. A well-cultivated olfactory sense must therefore be regarded as part of the equipment of a cultured man, and exhaling a delicate perfume adds to the sexual attraction of a woman. Clinically, there is a neurasthenic and a hysterical anosmia, and it is by no means so rare as we have been in the habit of believing. Anatomically, we may compare the olfactory bulb and its nerve process (olfactory nerves) with the nervous structure of the retina, *e.g.*—

1st layer of olfactory bulbs, including cells and of mucous membrane
= 1st outer layer of retina.

2nd layer strat. glomer. = 5th layer of retina, int. nucleus.

3rd layer strat. gelatin = 6th layer of retina, int. gran.

4th layer ganglionic = 7th layer of retina, ganglionic.

5th layer, nerve fibre = 8th layer of retina nerve fibre.

Professor Haycraft's paper on the sense of smell is quoted, and Dr. Dana believes with him that there is a similarity between the molecular weight and vibration of bodies and the odour they exhale, and he shows that probably the sense of smell, as well as that of taste, depend on the rate of vibration of gaseous particles, just as variations in colour depend on the vibration rate of the ether. Acting on this belief the author has constructed a *qualitative* olfactometer, consisting of two sets of phials; one containing monatomic alcohols of gradually increasing molecular weight, methylic and amylic alcohol being the extremes of a second set containing the fatty acids, with formic and valeric acids as extremes. A person with normal sense of smell ought not only to smell all these substances but to be able to distinguish between them, and it is probable that this investigation will show that there are people who smell everything, but who are odour-blind, just as some people see everything but are colour-blind. As a quantitative test phials with various strengths of oil of cloves are used, each being one-tenth as strong as the other, in accordance with the Weber-Fechner law that a sensation increases in accordance with the logarithm of the stimulus.

The sense of smell is exhausted in about three minutes for a single odour, but returns after a minute's rest.

The intracranial olfactory tracts and centres are affected.

(a) *Primarily* by—

1. *Degenerations* in locomotor ataxia, general paralysis and senile decay.
2. *Inflammation*, very rarely actual olfactory neuritis.
3. *Functional paralysis* as in hysteria.

(b) *Secondarily* by—

1. Injuries, hæmorrhages, meningitis, abscesses, tumours.
2. Necrotic and atrophic processes, as in softening thrombi.

The location of the pathological process is usually at the base of the brain and in the anterior fossa, but the hippocampus, the thalamus, posterior part of internal capsule on the opposite side, and the pons are mentioned as having been the seat of disease that has affected the sense of smell, syphilis being the most frequent cause. *B. J. Baron.*

Trolard.—*The Central Nervous Olfactory Apparatus.* "Semaine Médicale," Nov. 27, 1889.

THE olfactory trunks at the level of the anterior cribriform plate form, by the flattening of their substance and by the radiation of the white fibres emanating from the olfactory axis, a kind of sensitive plate, which merits the term "Olfactory Area." This area has relations with—1. the medulla oblongata; 2. the anterior tubercle of the optic bulb; 3. the cerebral cortex.

Onodi.—*Parosmia.* Königliche Gesellsch. der Aerzte in Buda-Pesth. Jan. 18, 1890.

THE patient referred to by the author had, along with sub-acute coryza, a constant smell of urine or petroleum. The case was cured. *Michael.*

Grabower.—*Stoerk's Blennorrhœa.* Laryngologische Gesellschaft zu Berlin, Jan. 10, 1890.

THE author exhibited a patient, aged twenty-five years, with a disease similar to Stoerk's blennorrhœa. Some years ago the patient had a greenish discharge from the nose which ceased without treatment. The mucous membrane of the nose and pharynx is now dry, and covered with dry secretion. Between the vocal cords a grey-red mass can be seen, which he looked upon as granulation tissue caused through the irritation of the secretion. The patient is a German, and is not of Galician origin.

Scholz, Heymann, and B. Fraenkel did not agree with the author in regarding this case as one of blennorrhœa. *Michael.*

Raugé.—*Pathogeny of Atrophic Ozena.* "Bulletin Médical," Jan. 1, 1890. A GENERAL review of the theories emitted by various authors as to the pathogeny of this disorder. *Joal.*

Euthyboule.—*Aneiform Syphilide of the Nose.* Congrès Internat. de Dermatologie, Sep., 1889.

THE author related a case of this nature, and indicated the points which characterise this form of affection. (1) The improvement under

specific treatment ; (2) the affection is symmetrical and median ; (3) all surgical treatment, except along with specific treatment, is ineffectual ; (4) alcoholism appears to act as a determining cause. *Joal.*

Ruault.—*Note on a very Simple Means of Obtaining Complete Disappearance of certain repeated Epistaxes.* "Archiv. de Laryngol.," Dec., 1889.

MANY patients suffering from repeated epistaxes owe these to the presence of a traumatic erosion situated on the antero-inferior aspect of the septum, in which cicatrisation is prevented by the mobility of the region and the presence of hard and irritating blood clots. These patients are cured rapidly and completely when care is taken to fill the anterior nares, from which the hæmorrhages proceed, with vaseline two or three times a day for two or three weeks. *Joal.*

Liégeois.—*The Therapeutic Indications of Epistaxis.* Rev. Gén. Thérap. et Clinique, Dec. 15, 1889.

A GENERAL review of the subject, in which the different treatments employed for arrest of epistaxis are examined. The author quotes a case of hepatic epistaxis for which he employed ineffectually a blister over the region of the liver, according to the method advocated by Verneuil.

Joal.

Wright, J.—*A Case of Rhinolith, and Two Cases of a Tooth in the Nose.* "The Med. Rec.," Oct. 12, 1889.

AFTER summarizing the structures, symptoms, and rhinoscopic view of a rhinolith, the case of a boy, aged thirteen, who had suffered for three years with offensive discharge and soreness to touch of the left nostril, a mass consisting of a sponge with calcareous material surrounding it was removed.

The first case of a tooth in the nose is that of a married woman, aged thirty-five years, who had had a dental operation, a piece of tooth being left in the alveolus, and who had found the nose "stopped up" at times, and with some discharges six months after. The nose had bled a good deal, and was sore to touch, the mucous membrane being red and swollen, and the probe detected a rough hard surface about an inch and a half from the left anterior meatus on the floor of the nose and close to the septum. A piece of tooth, three quarters of an inch long, was extracted from the left nostril. The second case was that of a rachitic child, aged eight years, from whose left nostril the crown of an incisor tooth was with difficulty extracted.

B. J. Baron.

Rohver.—*Case of Rhinolith.* "Internat. Klin. Rundschau," No. 2, 1890.

A MASS as large as a big walnut was extracted from the left nasal cavity. The ozæna which had accompanied the presence of the foreign body, together with the obstruction of the nose, were cured. *Michael.*

Chiari.—*Two Cases of Rhinolithiasis, with Remarks upon their Etiology.* "Annales des Mal. du Larynx," etc. Jan. 1890.

IN one case, in the middle of the rhinolith, small pieces of cork were met with ; in the other, a hard body like bone. In both cases a considerable

number of micrococci were found in the fætid mucus which filled every lacuna of the surface of the rhinolith. These cocci perhaps played an important part in the formation of the concretions, by withdrawing the lime salts from the nasal mucus, and favouring their accumulation round the foreign body. *Joal.*

Horne and Gardner. — *Rhinoplasty.* New York Acad. of Med., Section of Laryngology and Rhinology; "New York Med. Jour.," Sept. 21, 1889.

THIS is the account of a remarkable operation performed by the late Dr. Sabine, who engrafted the little finger as a nose, which, in the end, was too short, owing to necrosis of the first phalanx, &c.

Dr. KITCHEN showed some new instruments for operations on the nasal septum.

Dr. BLEYER showed a new tube for intubation, adapted to the movements of deglutition. *B. J. Baron.*

Péan. — *Total Resection of the Bones of the Face.* "Acad. de Médecine," Jan. 14, 1890.

THE operation was successfully performed upon a woman thirty-two years of age, the sphenoid, the maxillaries, and the molars being invaded by osteo-fibromata, consecutive to dentary heterologies. Péan concludes: "Total ablation of the osseous skeleton can be successfully performed, and the deformity and functional troubles resulting from the operation can be corrected by prothetic measures." *Joal.*

Heryng. — *Electrical Illumination of the Antrum of Highmore in Cases of Empyema.* "Annales des Mal. du Larynx," etc., Jan., 1890.

IN ten cases the author has used this new sign, indicated by Voltolini, as a means of diagnosis in this condition. The electrical spatula of Reiniger, which has the shape of Tuerck's tongue depressor, terminating in an Edison lamp of five volts strength, was employed. The tongue is forcibly depressed, the mouth closed, and the electrical circuit completed. Illumination of the bones of the face up to the orbit is obtained. If the patient is, however, affected with neoplasms or empyema of the antrum, the side affected remains dark. In cysts with serous contents the light passes easily. *Joal.*

Pedley, R. Denison (London). — *Suppuration of the Antrum, secondary to Caries of a Temporary Canine Tooth.* "Lancet," Feb. 16, 1886.

THE title indicates the nature of the case. *Hunter Mackenzie.*

Marchant. — *Dentary Cyst of the Maxillary Sinus, mistaken for Sarcoma of the Superior Maxilla, and Treated by Resection.* Société Anatomique, Feb., 1889.

THE tumour developed rapidly, and caused the falling out of several molars. It appeared in the face, in the gingival furrow, and in the nose. The author proceeded to resect the maxilla. Histological examination proved the affection to be a dentary cyst with squamous epithelium, lodged in the maxillary sinus. *Joal.*

Poisson.—*Diffuse Hyperostoses of the Superior Maxilla.* "Semaine Médicale," Jan. 1, 1890.

A FEW observations exist in literature of a singular affection described by authors under the vague term, "Diffuse hyperostosis of the superior maxillæ." This affection is characterised by a hyperostosis, which is oftenest bilateral and symmetrical, having its commencement ordinarily in both superior maxillary bones, invading their sinuses, appearing under the skin and in the nasal cavities, tending to propagation to the bones of the face and cranium, commencing in young subjects, progressing with extreme slowness, and leading to death by a progressively fatal course. Virchow regarded this affection as a kind of osseous elephantiasis, others relate it to rachitism, and others still to sarcoma. Poisson publishes a case of this affection, and is of opinion that in his case, there was a trophic affection of neuropathic origin.

Joal.

Mackenzie, John N.—*Some Points in the Pathology and Treatment of Disease of the Nasal Pharynx.* "New York Med. Jour.," Oct. 5, 1889.

THIS paper, which was read before the American Laryngological Association, deals with reflex neuroses springing from disease in the naso-pharynx, and the author evidently holds the opinion that Tornwaldt's enthusiasm carried him too far when he said that reflex troubles were very often due to affection of the pharyngeal bursa.

Primary pharyngeal bursitis is an almost, if not quite, unknown disease. As a summary, Dr. Mackenzie lays down the following propositions:—

1. The nasal pharynx is exceedingly sensitive to reflex producing stimulation.
2. The posterior parts of the turbinates, and points along the upper and posterior portions of the naso-pharynx are most involved.
3. Given a suitable subject reflex phenomena are awakened by disease in this part, *e.g.*, cough, asthma, and neuralgia.
4. If disease be present in the pharyngeal tonsil, it, and not only the bursa, should be wholly eradicated. When this is possible a favourable prognosis may be given.

B. J. Baron.

Poelchen.—*Anatomy of the Naso-Pharynx.* "Virchow's Archiv.," Bd. 119, 1890.

THE author has made researches upon the question of the pharyngeal bursa. He describes his method of section and freezing of specimens, with the results in three cases, and concludes that in the middle of the naso-pharynx is a spot differing from its neighbourhood in its special anatomical peculiarities. The os occipitis with its massa fibrosa and the mm. longi capitis cause this spot to form a recess. The mucous membrane contributes nothing to the formation of the fovea, and it covers equally the whole naso-pharynx. If the adenoid tissue is hypertrophied the recess cannot be seen. This proves that Tornwaldt is right in his opinion that the so-called bursa pharyngea is a recess of the mucous membrane.

Michael.

Potiquet.—*The Bursa of Luschka.* "Rev. Mens. de Laryngologie," Dec. 15, 1889.

AN interesting research, wherein the author records the results of his anatomical researches of sixteen heads. There exists in the vault of the pharynx a depression, but not a bursa. This depression is to be regarded as the posterior extremity, or as an annexe of the median cleft. To call this depression "the bursa of Luschka," would be an anatomical error. Potiquet thinks it better to return to the name given to it by Robin, viz., "the foramen cœcum."
Joal.

Chamnier.—*Adenoid Vegetations of the Naso-Pharynx.* "Acad. de Méd.," Mar. 11, 1890.

A RECORD of 232 cases observed by the author, but containing no new observation.
Joal.

Skelding.—*Naso-Pharyngeal Growths.* "Brit. Med. Jour.," Oct. 12, 1889. South Midland Branch, B M.A., Oct. 3, 1889.

THE author considered that these cases are much more common than is generally supposed, and specially alludes to the influence of these growths on the mental and physical development of the children who are the subjects of them.
Hunter Mackenzie.

LARYNX AND TRACHEA, &c.

Hermann and Meyer.—*The Physiology of the Muscles of the Glottis.* "Archiv. für Anat. und Physiologie," Nos. 5 and 6, 1889.

RESEARCHES upon the effect of the muscles attached to the arytenoid cartilages upon the position of the vocal cords, and the size and position of the glottis. The thyro-arytenoid and crico-arytenoid muscles close the glottis, and in maximal effect may draw the processus vocales across the middle line to the other side, so that a complete closure is produced. The glottis respiratoria is formed by the vocal processus, and represents a diverticulum of the trachea, which is closed by the m. ary-arytenoideus and the mm. thyro-arytenoidei. For secure closure of the glottis the general effect of all seven muscles is necessary.
Michael.

Kauthack.—*Contribution to the Histology of the Vocal Cords, with Special Report upon the Existence of Glands and Papillæ.* "Virchow's Archiv.," p. 531, 1889.

IN opposition to B. Fraenkel, the author proves that in the true vocal cords glands are never found, but only upon the sesamoid cartilages, in the angle of the vocal cords, and the thyroid cartilage. In normal larynges papillæ are never found in the region of squamous epithelium, but occur largely in chronic catarrhs. The author does not agree with

Ludwig, who believes that the elastic fibres of the vocal bands are the tendinous part of the m. thyro-arytænoideus. *Michael.*

Briesacher.—*Experiments upon the Superior Laryngeal Nerve.* "Centralblatt für Medicin Wissenschaft," No. 43, 1889.

THE author excised from two horses a long piece of the superior laryngeal nerve, and two months afterwards made a *post-mortem* examination. No signs of degeneration of any of the laryngeal muscles were observed, and he cannot, therefore, agree with Möller, who asserts that this nerve contains trophic fibres for the laryngeal muscles, and that atrophy of the muscles follows upon failure of innervation. *Michael.*

H. Krause (Berlin).—*On the Central Motor Innervation of the Larynx.* "Berl. Klin. Woch.," No. 7, 1890. *Michael.*

Semon (London) and **Horsley** (London). Answer to this paper. *Ibidem.*

H. Krause (Berlin).—*On the Central Motor Innervation of the Larynx.* Reply. Polemical Articles. "Berl. Klin. Woch.," No. 5. *Michael.*

Ball, James B. (London).—*On Hysterical Motor Affections of the Vocal Cords.* "Lancet," Feb. 23, 1889.—(Contains no original observations.) *Hunter Mackenzie.*

Catrin.—*A Case of Simulated Mutism.* "Lyon Médicale," Sep. 15, 1889.

THE patient was a young man, twenty-one years of age, who stated that his dumbness had lasted ten years. For seven months, in spite of strict surveillance, the patient had not pronounced a word, neither while awake nor asleep. Catrin advised the use of electricity, judiciously employed outside the larynx. The patient was informed that the currents would be indefinitely increased in intensity. The treatment in this case was perfectly successful. *Joal.*

Flesch.—*Treatment of Glottic Spasm.* "Deutsch. Med. Woch.," No. 1, 1890. NOTHING new. *Michael.*

Du Cazal.—*A Case of Reflex Cry.* Société de Biologie, Feb. 15, 1890.

THE case of a patient who, following on a traumatism, was affected with slight arthritis of the knee, with atrophy of the crural triceps. When an attempt was made to produce the patellar reflex on the atrophied side, there was oftenest provoked a reflex cry absolutely involuntary, and of quite a special character, which negated any idea of its being a stimulated phenomenon. *Joal.*

Suckling.—*Congenital Infantile Laryngeal Stridor.* Midland Med. Soc., "Brit. Med. Jour." Mar. 22, 1890.

THE author showed an infant, one week old, suffering from persistent laryngeal stridor, which had existed from birth. The mother stated that it was worse when the child was asleep and when it was made to cry. There was no sign of syphilis. Dr. Suckling had met with several such cases at the Children's Hospital. He attributed the stridor to some con-

genital abnormality in the larynx, possibly a recurved epiglottis, as in the case described by Dr. Lees. Such cases were unaffected by treatment, and the stridor disappeared as the child grew older.

R. Norris Wolfenden.

Steinthal.—*Paralysis of the Vocal Cords and Goitre.* "Württemberg Med. Correspbl.," No. 1, 1890.

THE author refers to two cases published by Seitz and Rehn, and adds his own cases. He was called to perform tracheotomy upon an asphyctic patient, who was, however, conscious. The patient had a large, soft struma. When the skin was cut the respiration ceased, and great venous bleeding occurred. After a time the patient became better. Next day an operation was performed upon the goitre, tracheotomy not being completed, and fourteen days later cure resulted. The attack must be looked upon as glottic spasm.

Michael.

Mulhall, J. C. (St. Louis).—*Case of Falsetto Voice.* "Internat. Jour. of the Med. Sciences," Aug., 1889.

IN this case the falsetto voice remained after the stage of puberty. With it there was associated an undue approximation to each other of the vocal cords.

Hunter Mackenzie.

Baker, Slade Innes (Abingdon). *The Effects of Castration on the Voice.* "Brit. Med. Jour.," Sept. 7, 1889.

A PATIENT had both testicles removed for tubercular disease three months previously, no change has taken place in the voice.

Hunter Mackenzie.

Whittle, E. G. (Brighton).—*A Case of Laryngeal Growths—Tracheotomy, Thyrotomy, and Removal of Growths—Recovery.* "Lancet," March 2, 1889.

A CASE of multiple growths in a three-year-old girl. *Hunter Mackenzie.*

Mackenzie, G. Hunter (Edinburgh).—*Case of Spontaneous Disappearance of Laryngeal Growths after Tracheotomy.* "Lancet," Apr. 6, 1889.

A BOY, aged five years, had tracheotomy performed in April, 1883, on account of warty growths of the vocal cords after measles. The cannula was retained for one year, when, as it was found that the growths had spontaneously disappeared, it was permanently removed. Since then the appearance of the larynx and the vocal and respiratory functions have been quite normal.

Hunter Mackenzie.

Robertson, William (Newcastle-on-Tyne).—*Cancer of the Larynx.* "Brit. Med. Jour.," Oct. 26, 1889. Northumberland and Durham Med. Soc., Oct. 4, 1889.

EXHIBITION of a patient in whom tracheotomy had been performed three years after the detection of the disease. *Hunter Mackenzie.*

Semon (London).—*The Question of the Transformation of Benign Laryngeal Growths into Malignant, especially in Consequence of Intra-Laryngeal Operations—Results of a Collective Investigation undertaken by the Interna-*

tional Centralblatt für Laryngologie, Rhinologie und verwandte Wissenschaften.
"Internat. Centralbl.," 1888, 1889.

By Lennox Browne, in London, and other laryngologists, the opinion has often been published that benign neoplasms of the larynx may be transformed into malignant by intra-laryngeal operations. As easily can be understood it is of the greatest interest for all laryngo-surgical treatment that this fact should be confirmed or disproved, because if the danger of such transformation exists or is aggravated by operations, the indications for the removal of intra-laryngeal growths must be very much limited, and such operations can only be justified by danger of impending asphyxia, and not for the relief of hoarseness or other disturbances of the voice. It was, therefore, necessary to study the question upon a large collection of material, and the author conceived the idea of doing this by collecting the cases of as many laryngologists as could be got to answer to his questions. One hundred and seven laryngologists have participated in the collection of cases, and have reported on 10,747 benign neoplasms, 4190 cases of which were papilloma, but of these papillomata only 612 cases were certified by microscopical examination. In 8216 cases the neoplasms (3382 papillomata) were removed by intra-laryngeal operation. In 480 cases recurrences of papillomata were observed, but probably the cases where recurrence takes place are much more frequent, a good many patients being lost sight of after operation.

Two questions were proposed for answer by collective investigation ; (1) Is transformation of benign neoplasms into malignant a frequent occurrence? (2) Can this transformation be caused by any method of operation? To the first question the result of the collective investigation gives an emphatic negative. If all the supposed transformed cases are accepted without criticism, there would be out of 10,747 cases only 45 transformations reported, 12 cases without, and 33 cases following upon intra-laryngeal operations. This is a proportion of 1:238 to which the expression "often" therefore cannot be applied. But if only the absolutely proved cases are regarded, there is then of the operated cases left the proportion of 1:685, so that such transformation must be looked upon as an eminently rare event.

(2) Can the transformation be regarded as a consequence of intra-laryngeal operations? Here also the answer must be given in the negative. If all, even the doubtful, cases are regarded, we have the result that of the non-operated cases of benign neoplasms, 2531, there were 12 degenerations, that is, a proportion of 1:211. Of the operated cases, 8216, degeneration occurred in 33 cases, that is, a proportion of 1:249. These numbers prove that degeneration is more common in the non-operated cases, and that, therefore, any relation between transformation and intra-laryngeal operation does not exist. Without any danger, we therefore may continue to remove benign neoplasms by intra-laryngeal manipulations.

The greatest part of the paper contains a very extensive report, and an exact criticism of the individual cases of transformation, and it must be said that this is done with great skill. The cause of transformation in the cases related could not be ascertained by the collective investigation.

Concerning the importance of microscopical examination of excised portions, it is doubtful if it is permissible to perform any operation if there is a suspicion of carcinoma, since some authors have observed that carcinomata became ulcerated or metastatic as soon as pieces of the growth were extirpated. Only if the patient is willing is it permissible to remove pieces for examination. Concerning the question of the method of operation for laryngeal cancer, intra-laryngeal extirpation, laryngofissure, followed by extirpation of the neoplasm, and half or total extirpation, can be considered. As B. Fraenkel has showed by his results, it is sometimes possible to cure cancers by intra-laryngeal operation, and it must be said that this method is free from danger, and even if without effect may later be followed by greater operations. It therefore should be tried if there is any probability of removing the whole neoplasm. But it must be admitted, as is proved by cases of laryngofissure and total extirpation, that the neoplasm is often much more extensive than the laryngoscopical examination would lead one to believe.

Michael.

Porter, William.—*Hæmorrhage from the Larynx.* "New York Med. Jour.," Sept. 21, 1889.

THE author of this paper does not believe that bleeding of laryngeal origin is so rare. As we are accustomed to consider it, and when it does occur, it does not necessarily follow that it depends on a grave and progressive pathological condition, and out of twenty-two reported cases he tells us that phthisis followed in only three instances. He quotes an interesting case, published by Hartman, in which it came on after singing, from rupture of a large capillary vessel upon the surface and about the middle of the left ventricular band; and another by Fraenkel, where it occurred in a pregnant woman, and the blood proceeded from the cords and posterior wall.

After reporting particulars of four cases in his own practice, he then summarizes:—

1. Laryngeal bleeding may occur from simple local conditions.
2. Unless associated with other and more positive symptoms, it is not indicative of pulmonary lesion.
3. It is possible that pulmonary disease may be excited through the passing of blood from the larynx into the lung.
4. Care ought to be taken to distinguish between pulmonary and laryngeal hæmorrhages.

B. J. Baron.

Massei.—*A Case of Lupus of the Larynx.* "Riforma Medica," No. 28, 1890.

THE author related the case of a girl of nine years of age in whom tracheotomy was required on account of symptoms of severe stenosis of the larynx. With the laryngoscope there was observed to be ulceration of the epiglottis, the free edge of which had a serrated appearance, and infiltration of the superior thyro-arytenoid ligaments and small prominences upon the inter-arytenoid space. It would have been difficult to diagnose this condition from syphilis or tuberculosis, if there had not existed other symptoms of lupus of the skin (lips, anus, and legs). While Massei

insists that, as Prof. Breda, of Padua, has already pointed out, that a primary form of lupus may possibly exist in the larynx, he also accords a certain value to the serrated appearance of the epiglottic edge, which structure is constantly impaired in lupus. The author also agrees with Breda in thinking that primary cases are not very rare, and that lupus is a disease which may be mistaken easily. In some cases, as in this one recorded, tracheotomy may become necessary. *Massci.*

Ficano. — *An Irregular Case of Laryngeal Syphilis.* "Rev. Mens. de Laryngol.," Feb. 15, 1890.

A MAN, twenty-six years of age, suddenly experienced feebleness of the voice, and presented laryngoscopically a swollen and hyperæmic mucous membrane; the ventricular bands covered the vocal cords, but on phonation the edges of the cords appeared to present a normal aspect. From the numerous small ulcerations, situated particularly on the arytenoids, and the velvety condition of the inter-arytenoid region, the diagnosis was very difficult, but was arrived at by the cure under mercurial and iodide treatment. *Joul.*

Rice, C.—*Some Unusual Manifestations of Tuberculosis of the Larynx.* "New York Med. Jour.," Sept. 7, 1889.

WE have already referred to a paper by Dr. C. C. RICE on this subject, which was read, before discussed, by the American Laryngological Association.

Dr. W. H. DALY has cured tuberculosis of the larynx, with alkaline sprays and inhalations and the use of pine iodoform. He believes in the existence of local laryngeal tuberculous ulceration with the characteristic bacillus present, and this disease he has succeeded in curing.

Dr. J. C. MULHALL said, that the bacillus is sometimes found in the mouth and throat of healthy people. He does not doubt that there is such a thing as catarrhal ulceration of the larynx, and considers it very difficult to prove that tubercle of the throat is ever local and primary. He has seen tubercular ulcers heal under the lactic acid treatment, but it was not therefore cured, and appeared on the other side.

The catarrhal ulcer has clean cut and not the creeping edges of the tubercular one, it is single and unaccompanied by other familiar signs of laryngeal tuberculosis.

Dr. F. J. KNIGHT has no doubt but that tubercular ulceration of the larynx will heal under mild treatment, such as alkaline sprays and iodoform, but if the pulmonary mischief is going on actively, and the patient is in poor health, not much good will arise from the cure.

Whilst believing that local laryngeal tuberculosis does occur, usually, such cases in time prove to have been marked cases of pulmonary lesion. The earliest signs of tuberculosis of the lung, are localized râles, and, in order to obtain these, the patient should cough from a rest and not breathe immediately before or immediately after he coughs.

Dr. CASSELBERRY supported Dr. Mulhall as to catarrhal ulceration.

Dr. J. N. MACKENZIE has known cases of primary local laryngeal tuberculosis, the diagnosis being confirmed by post-mortem examination.

He has healed one case of a tubercular and carcinomatous patient who had a small nodule in the trachea, composed of groups of tubercles. He has never seen catarrhal ulceration of the larynx. He has not been successful in curing tubercular ulcers by harsh measures and condemns them.

He describes an aphthous erosion which is probably produced by the corrosive action of the sputa in the later stages of this disease, which is easily curable, and he thinks that many of the so-called tubercular ulcers are really of this character.

Dr. WM. C. GLASGOW has no doubt but that real tubercular ulceration never heals. Iodoform and morphia insufflations are very useful in the treatment of loss of substance of the throat occurring in pulmonary tuberculosis. He thinks highly of the use of a spray of peroxide of hydrogen. The presence of the tubercle bacillus is valuable, its absence proves nothing.

Dr. RICE, in replying, said that catarrhal ulcers only come where there is much friction, *e.g.*, the tip of the epiglottis and the vocal bands. He treats laryngeal tuberculosis with iodoform, cleanliness and cocaine to relieve pain.

B. J. Barou.

Beverley, Michael (Norfolk).—*A Case of Thyrotomy for Foreign Body in Larynx.* "Brit. Med. Jour.," July 6, 1889. Norfolk Med.-Chir. Soc.

A RAILWAY porter, aged forty-two, placed a threepenny piece in his mouth, and, in jumping off the platform, drew it into his larynx. On laryngoscopic inspection the coin was seen lying across the vocal cords, impacted above their anterior extremity. Inversion and succussion, and the use of the forceps having failed to dislodge the coin, thyrotomy was performed. The ale of the thyroid cartilage were held back by retractors, but the coin could neither be seen nor felt. It had evidently slipped into the gullet and been swallowed, for it was passed *per anum* on the ninth day after the operation.

As a contrast to this the author appends the notes of another case of a similar nature. A relieving officer placed a sixpence in his mouth, and, owing to the movements of a restive horse, "swallowed it." Ten months subsequently he coughed it up, having in the meantime experienced no inconvenience from its presence in the air-passages. The author discusses the question as to whether, in the absence of inconvenience or symptoms of obstruction, an operation should be performed for the removal of a foreign body from the air-passages, or whether it should be left to chance expulsion, and he declares for operation for the reason mentioned by Erichsen: "So long as the foreign body is allowed to remain, the patient "is in imminent danger, either from immediate and sudden suffocation, "or from inflammation at a more remote period."

The author considers thyrotomy an operation free from great risk or danger.

Hunter Mackenzie.

Taylor, S. Johnson (Norwich).—*Thyrotomy for Foreign Body in Larynx.* "Brit. Med. Jour.," July 13, 1889.

THE author publishes the result of a laryngoscopic inspection of Dr.

Beverley's case (*vide supra*) as follows : " Slight obliquity of the glottis
" to the left, vocal cords on the same level, both cords abduct well, the left
" rather better than the right ; there is decided defect of abduction, all
" the abductor muscles being affected ; vocal cords somewhat thickened
" and irregular, more especially the right at the junction of the posterior
" and middle thirds ; some thickening below the vocal cords anteriorly,
" especially towards the anterior commissure. The patient's voice is
" hoarse, but not very so, and he says there is a great tendency for colds
" to fly there."
Hunter Mackenzie.

Mackenzie, G. Hunter (Edinburgh). — *Thyrotomy*. " Brit. Med. Jour.,"
July 20, 1889.

IN reference to the remarks by Dr. Beverley (*vide supra*), the author
gives his experience of this operation, and of the points requiring
attention in its performance.
Hunter Mackenzie.

Mantorani.—*On Tracheotomy*. " Bolletino delle Mal. dell' Orecchio," etc.,
No. 1, 1889.

NOTES of a case in which tracheotomy was performed in a hurry, without
light or proper instruments, upon a girl, two and a half years of age,
suffering from croup. A metallic urethral syringe was introduced instead
of the proper cannula. Death followed. The author suggests a special
modification of the common urethral syringe contained usually in surgical
cases in order that it may be employed in emergency cases as a tracheal
cannula.
Massèi.

Dor and Lerrat.—*Tracheotomy in the Course of Small-Pox*. " Annales des
Mal. du Larynx," etc., Dec., 1889.

THE case of a patient who during the course of an attack of small-pox
showed pulmonary symptoms, probably due to broncho-pneumonia.
Tracheotomy was performed with success. The authors relate this case,
because published records of tracheotomy in small-pox are excessively
rare.
Joal.

Nicaise.—*Tracheotomy complicated by Calcification of the Trachea*. " Annales
des Mal. du Larynx," etc., Nov., 1889.

THE tracheal rings with age present nutritive troubles, and particularly
calcareous degeneration, which it is necessary not to confound with
ossification. This calcification may be hastened by the presence of
laryngeal cancer, or chronic, and especially inflammatory, affections
of the vocal organ and trachea. When the latter is calcified, and
tracheotomy has to be performed, and the bistoury scrapes over the
rings of the trachea, it is necessary then to make a puncture between
two tracheal rings, when the trachea is opened with a pair of scissors.
The author relates two cases in which he has operated with the
precautions indicated.
Joal.

Schwartz.—*Inter-Crico-Thyroidean Laryngotomy*. " Rev. Gén. Thérap. et
Clinique." Mar. 12, 1890.

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REFERRING to a patient upon whom the author had performed this operation, the author states the reasons which led him to prefer the method, namely, its ease of performance, its efficacy, and its slight gravity. *Joal.*

Massei.—*My First Intubation in Croup.* "Archivio Italiani di Pediatria," Jan. 2, 1890.

AFTER describing the first case, the author relates three others, making four in all, of which three were successful. In two cases the author found that pus and false membrane issued from the tube; after which breathing was quite free. Two considerations may have a certain interest—(1) that it was probably good to keep the fine thread attached, which would render assistance more easy; (2) that, having pushed the tube well down, liquids and solids could be swallowed. The author was not previously well disposed towards intubation, but, after such successes, believes the method worth extensive trial; but intubation does not exclude tracheotomy, and both may be indicated in the treatment of such a severe disorder as croup. *Massei.*

Brothers, A.—*An Unusual Case of Laryngeal Intubation.* "The Med. Rec.," July 27, 1889.

THIS case is that of an infant, seventeen months old, who was intubated for diphtheria, and wore the tube continuously for twenty-one days, and with interruptions for nearly fifty-eight days, the author claiming that it is the longest case on record. Also a laryngeal oedema, he believes, was cured by the constant pressure of the tube. *B. J. Baron.*

Ficano.—*Leech in the Sub-Glottic Region: Extraction per Vias Naturales.* "Rev. Mens. de Laryngol.," Feb. 1, 1890.

A PATIENT, thirty years of age, swallowed a leech while drinking from a spring. A painful sensation in the throat followed, with slight dyspnoea and hæmoptysis. Fourteen days afterwards a black body was seen by the laryngoscope in the sub-glottic region. The mucous membrane was injected and covered with black spots of blood. The leech was extracted alive without any difficulty by forceps. *Joal.*

Batori.—*Foreign Body in the Bronchus.* "Königliche Gesellschaft der Aerzte in Buda-Pesth," Feb. 15, 1870.

THE author related the case of a girl, six years of age, who six months previously had inspired a melon seed. Tracheotomy was not permitted by the parents. The girl had spasmodic cough and pleuro-pneumonia. During the course of the disease the foreign body was expelled, and a cure resulted. *Michael.*

Meltzer, S. J.—*Intubation in Cases of Foreign Bodies in the Air Passages; with Remarks concerning Feeding after Intubation.* "The Med. Rec.," Sept. 21, 1889.

THIS paper deals with a case of a boy, aged three years, who got a piece of nutshell into his larynx which choked him, and for which

intubation was necessary. The foreign body came out in the tube, and recovery, after pneumonia had been successfully treated, ensued.

The author feeds his intubated cases by means of a soft catheter introduced through the nose into the stomach, and left there as long as is necessary.

B. J. Baron.

Page (London).—*Foreign Body in Right Bronchus — Tracheotomy.* "Brit. Med. Jour.," July 20, 1889.

IN the case of a boy, aged nine years, a smooth piece of cornelian which had become impacted about the bifurcation of the right bronchus was successfully removed by coughing after tracheotomy and the use of a long probe.

The author points out the propriety of persisting day by day in the attempts to remove foreign bodies from the air-passages, and to the benefit which accrues from attaching the edges of the tracheal wound to the skin whilst searching for them.

Hunter Mackenzie.

THYROID GLAND AND NECK.

Fano.—*The Functions of the Thyroid Gland.* Congrès de Physiologie, Sep., 1889.

EXPERIMENTS were made upon dogs. When both lobes of the thyroid gland are ligatured the animals die with symptoms like those which follow extirpation. If one lobe be removed, the other being injured, the animals survive many months. A dog rendered anæmic by successive bleedings did not suffer from extirpation of the gland. Dogs with cachexia strumipriva, made anæmic, presented amelioration of their general condition. The cause of the cachexia must, therefore, be attributed to the condition of the blood, and a function must be attributed to the thyroid gland of purifying the blood.

Joal.

Lannelongue.—*Transplantation of the Thyroid Body from the Animal to Man.* Soc. de Biol., Mar. 8, 1890.

THE author, premising that the accident of myxœdema could be prevented by transplanting into the human subject the whole or part of the thyroid gland of some animal, performed the experiment upon a girl of fourteen affected with pachydermic cachexia, transplanting a portion of a sheep's thyroid into the mammary region, the cervical region in a myxœdematous subject being a bad field for operation. The operation was performed eight days before the report, cicatrisation was complete, the health of the child was nowise altered, but what the result of the operation would be could not be foretold.

Joal.

Harrison, Damer (Liverpool).—*Case of Bronchocle treated by Electrolysis.*
 "Brit. Med. Jour.," July 20, 1889. North Wales Branch, B.M.A.,
 July 11, 1889.

THE result was stated to have been most successful. *Hunter Mackenzie.*

Hutchinson, Procter S. (London).—*Two Cases of Malignant Disease of the Thyroid Gland.* "Brit. Med. Jour.," July 20, 1889.

CASE 1: A man, aged fifty-three. A hard, tender, and immovable swelling, of about three months' duration, occupied the right lobe of the thyroid gland. It caused severe pain, dysphagia, and huskiness. The right vocal cord was fixed in the cadaveric position. The patient died from exhaustion in about six weeks from the time of being seen.

On necropsy, the whole gland was infiltrated with pus, and cut on section like a liver. Microscopically, it was found to be a small-celled cancer, with many of the characters of an alveolar sarcoma. The dysphagia and aphonia were caused by pressure, and not by the growths having involved either trachea or œsophagus. No enlarged glands were found.

The author believes that this case illustrates the difficulty, so often found in thyroid tumours, of determining whether the growth is sarcomatous or cancerous.

CASE 2: A woman, aged fifty-six, the subject of a long-standing goitre, complained of swelling on the right side of the neck, causing dyspnoea and dysphagia. The symptoms becoming aggravated, an attempt was made to remove the lateral swelling, but it was found to be too firmly attached to the neighbouring structures to permit of this being done. A piece of the tumour was removed, and examined microscopically: it was found to be cancerous, most probably scirrhus. The patient died five months subsequently.

The author makes reference to another case recently under his observation in which malignancy had developed on an old goitre, and concludes with a summary of cases from the Transactions of the Pathological Society of London. *Hunter Mackenzie.*

Ballet.—*Ideas of Persecution in Exophthalmic Goitre.* Soc. des Hôp., Feb. 28, 1890.

THE case of a patient affected with Graves' disease and markedly hysterical, and who also suffered from a particular form of mania with persecution, mistrust being the predominating feature. Visual, auditory, and olfactory hallucinations were also present. Was this a case of true mania with ideas of persecution, associated fortuitously with goitre and hysteria, or did the mania directly proceed from either of these two affections? The author thought Graves' disease alone cannot account for ideas of persecution with their horrible possible consequences, homicide and suicide, but that it is due to the complication of hysteria. This originates hallucinations, the goitre serves to realise the idea of persecution. There could not be any question of true mania on account of the evolution of accidents, and the predominance of visual hallucinations. *Joal.*

Milligan.—*Division of the Isthmus in Goitre.* "Brit. Med. Jour.," Oct. 12, 1889. South Midland Branch, B.M.A., 1889.—(Two cases were related, but not reported.) *Hunter Mackenzie.*

Bidwell.—*Tubercle of Thyroid.* "Brit. Med. Jour.," Mar. 22, 1890.

THE author showed at the Hunterian Society a thyroid gland with tubercular deposit. The gland was not enlarged, but there was a caseating tubercle the size of a large pin's head in the centre of the right lobe. The specimen was taken from a child, aged five and a half years, who died from acute general tuberculosis. *R. Norris Wolfenden.*

Jurgens.—*Myxœdema.* "St. Petersburg Med. Woch.," No. 51, 1889.

A PATIENT, forty-one years of age, rather stupid, for some months had had the characteristic expression of myxœdema in her face, and could not walk as well as formerly. The face is œdematous, the thyroid gland being normal. She expectorates a good deal of mucus. The skin of the whole body is œdematous. The author excised a small piece. The surface of the wound covered with a fluid mass, but little blood. No pain was felt during the excision, and the wound healed in a few days. One-and-a-half litres of urine were passed *per diem*. The treatment consisted of meat diet and tincture of acetate of iron. *Michael.*

Smith, G. B.—(1) *Sarcoma of Neck*, (2) *Thyroid Cyst.* "Brit. Med. Jour.," Oct. 26, 1889. Metropolitan Counties Branch: South London District, B.M.A., Oct. 16, 1889.—(Exhibition of cases.) *Hunter Mackenzie.*

Paley (Brighton).—*Lymphadenoma.* "Brit. Med. Jour.," Oct. 26, 1889. Brighton and Sussex Med.-Chir. Soc., Sep. 5th, 1889.

EXHIBITION of a boy with enlarged cervical glands and adenoid growths in the pharynx. There were no changes in the blood, and it was a question whether the case was one of lymphadenoma, or whether the enlarged glands were dependent upon the condition of the pharynx. *Hunter Mackenzie.*

Gould, A. Pearce (London).—*Treatment of Strumous Glands.* "Brit. Med. Jour.," Oct. 26, 1889. South-Eastern Branch: East Surrey District, B.M.A., Oct. 10, 1889.

THE author advocates the early use of a small incision, and scraping out of the diseased gland through it by a blunt spoon. *Hunter Mackenzie.*

NOTE.

Tenth International Medical Congress to be held in Berlin from
August 4 to 11, 1890.

Committee of Organisation for the Section of Laryngology and Rhinology:—
Beschorner (Dresden), B. Frienkel (Berlin), Gottstein (Breslau), A. Hartmann
(Berlin), Jurasz (Heidelberg), H. Krause (Berlin), Michael (Hamburg),
Schech (Munich), M. Schmidt (Frankfort).

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Introductory Address : Laryngology since the last International Congress in
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1. Diagnosis and Therapeutics of Cancer of the Larynx. Reports by
Henry T. Butlin, London, and J. Gottstein, Breslau.
 2. Deviations and Criste of the Septum Narium. Reports by J. Moure,
Bordeaux, and A. Hartmann, Berlin.
 3. Diagnosis and Therapeutics of the Diseases of the Accessory Cavities of
the Nose. Reports by P. McBride, Edinburgh, and Ph. Schech, Munich.
 4. Syphilis of the Upper Passages of Respiration. Reports by L. Schroetter,
Vienna, and George M. Lefferts, New York.
 5. Acute Infectious Inflammations of the Pharynx and Larynx. Reports by
F. Massei, Naples, and Mor. Schmidt, Frankfort-on-Main.
 6. In conjunction with the Section for Children's Diseases : Intubation.
Report by J. O'Dwyer, New York. A second to be named by the Section for
Children's Diseases.
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The papers here announced will afterwards be published.

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THE THROAT AND VOICE.

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[1890.

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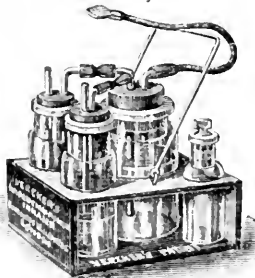
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The Editors do not hold themselves responsible for opinions expressed by contributors.

THE CORTICAL MOTOR LARYNGEAL CENTRE,
AND THE INTRA-CEREBRAL FIBRES WHICH
PROCEED FROM IT.

By Dr. J. GAREL,

Médecin des Hôpitaux de Lyon, in Collaboration with M. LOUIS DOR,
Interne des Hôpitaux.

IN May, 1886, we communicated to the French Otological and Laryngological Society¹ a case, unique of its kind, of unilateral paralysis of the larynx, diagnosed during life as of cerebral origin. Autopsy confirmed the diagnosis, and we were able to assign to the motor cortical laryngeal centre a pretty well-defined situation. This case supported the ideas held as to the existence and situation of this centre. Since that time we have in vain looked for any new case which would allow the confirmation of our preceding conclusions. In fact, the publication of the first memoir aroused objections. Semon and Horsley,² basing their opinions upon their experiments, clearly declared that our conclusions were erroneous, and that we had certainly overlooked lesions situated deeper. Gottstein³ contented himself with reproducing this criticism of our case. Until now we have not thought proper to answer such an objection. We were, however, confident of the minute care with which we had performed so important an autopsy. On the other hand, the refutation of clinical observation by experiment has only a restricted value. A long time ago, Charcot remarked that in the matter of cerebral localization it is necessary to keep to the facts furnished by clinical observation and pathological anatomy. The numerous contradictions of various experimenters is sufficient proof of the truth of this remark. In the present case it will be easy to demonstrate the exact value of the former

¹ Garel : "Annales des Maladies du Larynx," etc., May, 1886.

² Semon and Horsley : "Brit. Med. Journ.," August, 1886.

³ Gottstein : "Die in Zusammenhänge mit den Organischen Erkrankungen des Centralnervensystems stehenden Kehlkopfaffectionen," Wien., 1888.

and recent experiments of Semon and Horsley. Other experimenters, equally distinguished, have obtained quite different results. In any case, experimentation may be criticised—a clinical fact, on the contrary, is stubborn and decisive. We are now in possession of a fresh clinical fact, which, if not similar to the first one published by us, is nevertheless a fresh confirmation of our former statement. It is a case of unilateral paralysis of the larynx, resulting from a cerebral embolism of small importance, situated at the level of the lenticular nucleus, and having ruptured the internal capsule at the level of the knee of the capsule. We have thought it best to compare this case with our first one, each case completing the other, and permitting the establishment of two important landmarks in the cerebral topography of the laryngeal motor fibres.

CASE I.

Apoplexy. Right hemiplegia and aphasia from atheroma of the cerebral arteries, determining multiple foci in the left hemisphere. Complete paralysis of the left vocal cord, due to a lesion of the right hemisphere, localised in the probable seat of the cortical centre of the larynx.

Anne Tutel, aged seventy-two, came under observation on January 9, without any information as to her antecedents. Two days before she was attacked with apoplexy, with loss of consciousness, right hemiplegia, facial paralysis of the same side, and aphasia. The right hemiplegia affected also the upper limb. Sensibility intact. Facial paralysis of the same side. Feebleness of heart sounds, but no murmur. Some scattered râles in the lungs. Very marked elevation of temperature. On January 10, complete paralysis of the right arm, with epileptiform convulsion of the thumb and fingers. Incomplete paralysis of the right leg. Three or four erosions or phlyctenule existed on the right buttock. The patient understood what was said to her, but could only answer by a grunt somewhat resembling a "oui." On January 12, five days after the attack, laryngoscopic examination was practised, in order to determine whether the right vocal cord participated in the hemiplegia of the same side. To my great astonishment, I found that it was the *left vocal cord*, which was paralysed in the cadaveric position. The larynx was intact, *i.e.*, presented no special organic alteration. There was no cause assignable for compression of the left recurrent. The state of the patient improved little by little, and the aphasia tended to very slightly disappear. On January 23, the left vocal cord was still paralysed. A second attack supervened during the night of the 25th to 26th Jan. The patient passed into absolute coma, the head being directed to the right side. Death occurred on January 27, at five o'clock in the morning.

Autopsy.—In my first memoir, I have given all details concerning the viscera. There were no important lesions, at least as regards the question which now interests us.

Brain.—Moderate hyperemia of the meninges at the base and laterally. The basilar artery showed marked signs of endo-arteritis, consisting of almost complete rings, or yellow hard plates of atheromatous and calcareous nature. The same lesions were observed in the posterior, middle, and anterior cerebral arteries. The middle cerebral or sylvian arteries presented nodules of atheroma in their whole length.

Left hemisphere.—The atheromatous plates ceased at the entrance of the sylvian artery into the fissure of Sylvius. At the first bifurcation of the artery there was a small recent red clot, situated *à cheval* on the spur of the

division. The fissure showed no lesion. A first small nucleus of softening was found between the ascending frontal and the base of the third left frontal. A second focus was found in the fissure of Rolando, situated up to the level of the second frontal. A little higher, on the ascending frontal, two or three very small spots of red softening were discovered. Further away, a focus of a reddish tint. This focus, which was the most extensive, was situated at the level of the second and third frontals, towards the middle third of the ascending parietal. This nucleus was separated and enucleated with the greatest facility, leaving a base slightly altered. It was without connection with the other foci. The foci of the ascending frontal and ascending parietals alone bruised the subcortical white substance a little. Nothing in the central ganglia.

Right hemisphere.—Atheroma extending into the fissure of Sylvius. The inferior part of the ascending frontal, slightly adherent to the meninges. These removed, this part presents a rough surface, sharply differentiated from the smooth aspect of the rest of the cortex; this surface is also slightly yellow-coloured (C). In front, at the foot of the third frontal convolution, two points (A and B) of red

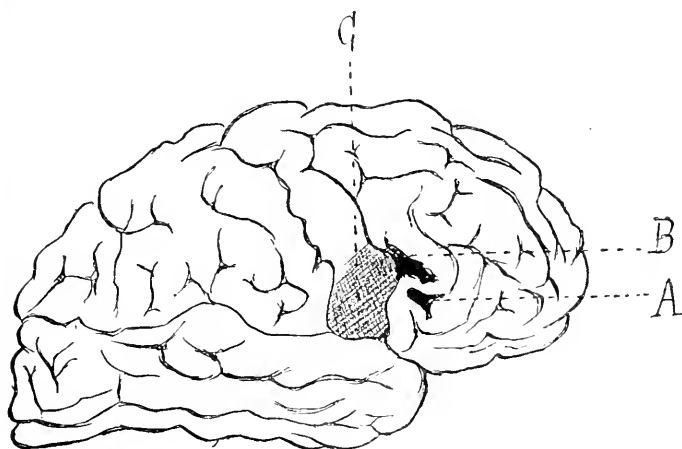


FIG. 1.

softening were found near together, in appearance like those of the opposite hemisphere. No lesions in the anterior parts of the third left frontal. On section these lesions are only little in depth, and only affect the cerebral cortex; in the upper one only there exists a single yellowish lesion involving the white substance. The lesion of the ascending frontal penetrates a little into the white substance, in the fissure which separates it from the third frontal convolution and reunites with the superior nucleus B, forming thus one and the same lesion. No lesion of the bulb, or cerebellum was found.

There was nothing in the neck which could cause compression or thus explain a laryngeal paralysis of peripheral origin. The larynx was nowhere abnormal, and the left crico-arytenoid articulation was not ankylosed.

We will remark that this was not a case of an anatomical condition interpreted *post-mortem* in a fantastic manner, but the exact verification of a diagnosis made during life. From the presence of *left laryngeal hemiplegia* in a patient affected with right complete hemiplegia, and without the least sign of alternating hemiplegia, we had supposed that

there would be a lesion of both cerebral hemispheres. We expected that at the autopsy we should find extensive lesions in the left cerebral hemisphere, explaining the complete right hemiplegia, and in the right hemisphere, a less extensive lesion answering to the very localised paralysis of the left half of the larynx. The facts confirmed our hypothesis. We insist strongly upon the importance of this observation, for this is the only case known up to now of *pure laryngeal monoplegia without any other paralysis of the same side*. It is the only case verified by laryngoscopic diagnosis as of cerebral origin, and confirmed at the autopsy. The value of this observation from the point of view of cerebral localization of the laryngeal centre has been recognised by Massei,⁴ by Lubet-Barbon,⁵ by Jonathan Wright,⁶ etc. We do not understand how Masini,⁷ in his excellent experimental study, accords more importance to the case published by Rébillard, in 1885 (Thèse, Paris). This was the case of a patient in the clinic of Luys, who presented right hemiplegia with paralysis of the right vocal cord. The coincidence of vocal paralysis, with paralysis of the limbs, is an untrustworthy point in regard to localisation, for it involves the existence of extensive lesions. But what makes the case less valuable yet, is the existence of very numerous lesions at the autopsy. We cannot do less than enumerate them in detail, quoting from the author's text :—

"At the *autopsy* the cerebral matter was generally softened, but tolerably consistent. Some adhesions were found. The right frontal lobe contained in its substance a tumour, which adhered to the meninges, and was of opalescent tint."

"*Left frontal lobe.*—Fissure of Rolando, tortuous and irregular. Both frontal convolutions of rosy tint without notable hyperemia; no adhesion with meninges. The third frontal presented at its foot a very large hæmorrhage, which had destroyed all the grey matter of the convolution. The cortical substance of the left hemisphere was pale, yellowish, with projecting granulations, probably of syphilitic nature. The corpus striatum was invaded by a yellowish mass. The tissue of the optic layers was very indurated, but without appreciable granulation. The cerebellum was small and atrophied, and presented projecting granulations, sensible to touch. The fourth ventricle was dilated and slightly hyperemic. The pons was a little indurated."

"*Right hemisphere.*—The second and third frontals were destroyed by a tumour of the size of a nut, incorporated with the meninges. A small tumour was also seen on the ascending parietal at the level of the paracentral lobule. This hemisphere appeared to have suffered most. The same granulations were found as on the other hemisphere. The centrum ovale was softened."

Such is the case which Masini considers the most favourable for precise localisation of the cortical motor centre of the larynx. The reader may form his own opinion of the value of this assertion. In our opinion the case of Rébillard proves only one thing, viz., that there really exist cases of hemiplegia of the larynx along with a hemiplegia of the limbs, and that

⁴ Massei: "Sopra un Caso di Paralisi Laringea per Lesione Corticale." "Archiv. Ital. di Laring.," 1887.

⁵ Lubet-Barbon: "Etude sur les Paralysies des Muscles du Larynx." "Th. Inaug.," Paris, 1887.

⁶ Jonathan Wright: "Two Cases of Laryngeal Paralysis." "New York Med. Jour.," Sept., 1887.

⁷ Masini: "Sui Centri Motori Corticali Della Laringe." "Archiv. Ital. di Laring.," 1888.

this hemiplegia may depend upon lesions of the brain. It proves also that concomitant laryngeal hemiplegia may occur from a special cerebral lesion, since numerous cases of hemiplegia occur in which laryngeal paralysis is absent. This case and ours are also the only ones in which laryngeal paralysis has been stated with the laryngoscope during life, and in which an autopsy has been made. Masini in the clinical part of his memoir passes in review all other observations known till then, but only having a secondary value. In a first category, he cites the observations of vocal affection from cerebral lesions without laryngoscopic examination, but with autopsy. He found five such observations :—

1. The two well-known cases of d'Ange Duval (traumatic origin).
2. The first case of Luys. ("Annales des Mal. du Larynx," etc., 1875.)
3. The case of Livio Ronci (aphonia after apoplexy). A new case well detailed.
4. The case of Seguin.

In all these cases the absence of laryngoscopic examination is a capital defect. No conclusion is possible.

More interesting is the second category of hemiplegias from cerebral lesions without autopsy, in which has been found laryngoscopically a unilateral laryngeal paralysis. Masini has only collected five observations.*

1. Lewin : "Case of Paralysis of the Left Vocal Cord of Central Origin. Left Hemiplegia" ("Berl. Klin. Woch.," 1874).
2. Bryson Delavan : "Note on the Localisation of the Cortical Motor Centre of the Larynx" ("Med. Record," Feb., 1885).
3. Cartaz : "Observation from the Clinic of Landouzy at La Charité" ("France Med.," 1885). Right hemiparesis and paralysis of the right cord.
4. Garel : "Right Hemiplegia. Aphasia. Paralysis of the Right Vocal Cord" ("Ann. des Mal. du Larynx," etc., 1886).
5. Garel : "Left Hemiplegia, Paralysis of the Left Vocal Cord" (*loc. cit.*).

Since this time our distinguished confrère, Dr. Massei, has published a new observation of paralysis of the left vocal cord, with left facial paralysis and deviation of the tongue to the same side. The case was not completed by an autopsy. We hesitate greatly to class it with those of the second category which we have just cited, since the diagnosis may be disputable between a bulbar lesion and a cortical lesion. The case of Bryson Delavan, which made much stir at its announcement in 1885, and which had the merit of bringing the question to the front, ought really to be displaced from the important rank which Masini has given it. Bryson Delavan, whose work was the signal for a series of others (Cartaz, Lannois, Rébillard, etc.), published in June, 1889 ("New York Med. Jour.") a second note. From this note it results that the unilateral laryngeal paralysis attributed by him to a cortical lesion of the laryngeal motor centre, came from a bulbar lesion. Here is, therefore, a case which re-enters into the well-known category of cases of laryngeal paralysis from bulbar origin. In Delavan's observation, the case was one of a patient attacked with total hemiplegia, facial paralysis, and

* These cases ought certainly to be more frequent. They will be multiplied when laryngoscopy is practised in a general manner.

unilateral laryngeal paralysis. The hemiplegia of the limbs disappeared, the vocal paralysis remained permanent. It was precisely upon the persistence of this latter that Bryson Delavan rested the affirmation of its cortical origin. Autopsy unhappily did not confirm the diagnosis.

We have thought it best to recall our first observation in order to answer to the criticisms which it raised. It was moreover indispensable for this study, wherein we desire to treat the question in its entirety.

This case in connection with our second more recent case will be the indispensable complement of the latter.

CASE II. (*Original and unpublished.*)

Ulcerative endocarditis and pericarditis. Pulmonary infarcts. Paralysis of the left vocal cord from a small cerebral embolism localised in the corpus striatum, and involving the internal capsule.

Case reported by M. L. DOR, interne.

Henri F., thirty-five years of age, a labourer, entered the "Hôpital de la Croix-Roussi," Salle Saint-Nizier, No. 14, on October 8, 1889. His father is still living and enjoys perfect health. His mother died in 1875, after an illness lasting three days. He has two brothers and a sister in good health. A brother died from pleurisy at twenty-eight. In 1874 the patient had an attack of acute articular rheumatism of great severity. All the articulations were successively involved with the exception of the coxo-femoral, temporo-maxillary and articulations of the vertebral column. He, however, experienced great pain in the cervical spine at the level of the fourth articulation. This rheumatic attack was followed by working in water for nine months day and night. The patient has never had rheumatic symptoms since this date. He has been marvellously well, and never has had dyspnoea, palpitation, or œdema of the lower limbs. On December 12, 1888, he received an accident. An iron point having penetrated his finger, occasioned phlegmonous inflammation of his right arm. Incisions and counter openings were made, of which the traces yet remain. He was treated at "l'Hôtel-Dieu," of Lyons, under Prof. L. Trippier, who proposed to amputate the finger, but the patient refused, and left the hospital at the end of twelve days. From January to June, 1889, it suppurred pretty abundantly, which was treated by some quack by an ointment. Suppuration ceased towards the month of June; but up to then the finger constantly discharged a small quantity of pus. He then had quarrels with his employers, who refused to pay him what they had promised, and engaged in legal proceedings, which were only just commenced at the time of his death. The trouble which was caused to him, by finding himself without the means of existence, prevented him from sleeping and from taking nourishment. He succumbed then rapidly. On Sunday, October 6, he had a slight rigor with headache, and went to lie down. He coughed all night. Next day he went to a physician, who advised him to enter a hospital. On the day of his admission, *i.e.*, October 8, he appeared to be thin and weak. He had a brown tint and red cheeks. He coughed, and had great oppression. Respiration was short, and 48 to the minute. For two days he had coughed rusty or rather reddish expectoration. On examination of the chest dullness of the right apex was found before and behind. In front, behind, and in the axilla, respiration was very rough; and in front, at a very limited spot, a little *souffle* and bronchophony existed. Vibrations were slightly exaggerated. The rest of the lungs presented nothing abnormal. Temperature on the evening of admission did not exceed 38°. The urine contained a very large quantity of albumen. The heart's beat was

under the sixth rib, outside the nipple. The heart could be heard to beat at a distance, with the ear more than two centimètres from the thorax. On auscultation, rubbings and gratings of considerable intensity were heard. On palpation very sensible tremors were felt. At the apex, a "bruit de gallop," which, along with the pericardial frictions, produced a veritable rhythm like a weaving shuttle. On placing the ear well to the right, outside the pericardium, the existence of a systolic souffle was recognised, and of a diastolic souffle at the base. There was no cardiac irregularity.

On Oct. 9.—Slight oedema of the ankles and of both pulmonary bases. Champagne, diuretic wine, and two litres of milk were prescribed.

Oct. 10.—Slight raucity of voice was noticed, to which no attention had been paid yet, and the laryngoscopic examination was remitted to the morrow.

Oct. 11.—The temperature, which during the preceding two days had oscillated between 37·2 and 37·5, fell this morning to 36·8, and rose in the evening to 37·4. Laryngoscopic examination was performed, and we were astonished to find *complete paralysis of the left vocal cord*. The cord was in the cadaveric position, a little separated from the mid-line; it was not tense, its free edge being slightly concave. Greatly puzzled by this paralysis, the patient was asked when he developed any affection of the voice. He then replied that during the night of October 6-7, feeling ill in the middle of the night, he wished to call one of his parents who slept in the neighbouring room. He could not emit any sound, and had to strike upon the partition dividing the rooms as a signal for assistance. We practised a more thorough laryngoscopic examination, and proved that the right vocal cord was absolutely healthy; its movements were normal. During phonation it came to the mid-line without crossing over it, and left an open glottis. The glottic chink thus imperfectly closed, presented a rectilinear line on the right side and a slightly elliptical outline on the left. We examined with the greatest care the mobility of the arch of the palate and the tongue, and found nothing abnormal. Nothing abnormal was found on the part of the face or eyes. No paralysis and no anæsthesia of the upper or lower limbs. We therefore had to deal with a case of purely laryngeal hemiplegia. We made a diagnosis of cerebral embolism, involving the cortical motor centre of the larynx, in face of the pulmonary affection which we had regarded as of embolic origin, the presence of ulcerative endocarditis, and the absence of any cause of compression of the recurrent in the neck. We eliminated bulbar embolism, not seeing how an embolism, even when localised in this region, could produce a laryngeal hemiplegia without involving at the same time the nuclei of origin of other cranial nerves.

Oct. 12.—Temp. 36° 8 in the morning, and 37° 4 in the evening. We found the patient with a face not only terrified but cyanosed. There was very marked cooling of the upper and lower extremities; the index and middle fingers were violet and completely cold, in a symmetrical fashion; the two great toes presented an asphyxiative tint, and on their lower surface was symmetrical ulceration surrounded with violet areola. There was, however, no anæsthesia of the extremities. Since yesterday the patient had abundant diarrhœa, which, however, diminished a little this morning.

Oct. 13.—Morning and evening temperature did not go beyond 36° 8. The cyanosis of the extremities had disappeared; the patient's hands and feet were very cold, but the violet appearance no longer existed. The diarrhœa had also stopped.

Oct. 14.—Reappearance of a slight degree of cyanosis of the extremities, localised to the same fingers as before. Resp. 48, pulse 88, hypothermia persisted at 36° 8. The red sputa had disappeared, also the souffle and dulness. There

was no longer any œdema of the pulmonary bases. To the pericardial frictions were added pleural frictions, and when the cardiac apex was ausculted the intermixture of these sounds was heard, some coinciding with respiration and stopping with it, others coinciding with the cardiac pulsations. The urine always contained a considerable quantity of albumen, was greenish in reflection, clear and frothy. There was a deposit which, microscopically examined, enclosed many casts of all dimensions, granular, hyaline, and epithelial. Tincture of iodine coloured them only yellow. A certain number of large casts were easily coloured brown mahogany by isolated tincture of iodine. Some spermatozoa and white corpuscles were present. Laryngoscopic examination gave the same results as before, and no new paralysis was added to the other symptoms. Upon ophthalmoscopic examination it was found that the papillæ were normal. They, however, presented a white colouration, recalling that of atrophy. The rest of the fundus showed nothing particular. No peri-papillary œdema.

The patient appeared very feeble this morning, and his aspect became more and more cachectic. In the evening, he had moments of obfuscation, and when spoken to did not answer. Respiration was panting, and the *alæ nasi* expanded with each inspiration. Respiration: 48 a minute.

On ausculting the heart, the *souffle* was heard better at the apex than at the base. There was no femoral double *souffle*. At ten o'clock at night, the patient fell into a comatose condition, and died at eleven.

Autopsy.—Thirty-six hours after death. We must remark at first that examination of the brain was commenced with, from the certainty we had of finding a lesion in this organ confirming our diagnosis, *i.e.*, explaining the laryngeal hemiplegia noticed during life. We shall see the details of the lesions of this organ at the end of the description.

The heart was very hypertrophied, being many pounds weight heavier than normal. The pericardium contained about 100 grammes of yellow liquid, and a deposit of white and thick false membrane. Similar membrane, rugose, were dispersed on the whole visceral and parietal surfaces of the serous membrane. A number of small bud-like granulations of vegetating endocarditis existed on the mitral valves. The valve was rendered incompetent only in consequence of the irregular nature of its edges in consequence of the vegetations above mentioned. The chordæ and papillary muscles were of normal aspect, the neo-formations existing only at the base of the valves.

The tricuspid valve was absolutely normal. The sigmoid valves of the aorta presented a notable thinning of their free extremity, which rendered them very transparent. One was completely fenestrated, the free edge representing a thin ribbon. Below this was a reticulated and very friable fenestrated tissue. This all contributed to render the aortic valve insufficient, and it was also incapable of keeping the water turned in above its orifice. The lungs inclosed no great infarcts, but, principally in the right lung, spots were found of more dense non-aerated greyish substance, and some fragments cut out fell directly to the bottom of the water. The liver and spleen presented nothing special, except a slight augmentation of volume. The kidneys had a very remarkable marbled aspect, not permitting the distinction of the cortical zone especially from the rest of the kidney. Section presented a uniformly whitish aspect, and an innumerable series of deep red points were seen, almost black, forming a kind of depression in the middle of the white tissue. They were in fact small numerous infarcts. The white substance was affected with amyloid degeneration, as was proved by the iodine reaction. No tumour was found on the left side of the neck which could cause compression of the recurrent. The larynx itself appeared perfectly healthy.

The two cords were of course in cadaveric position, and nothing could account for the paralysis noticed during life. No ankylosis of the left arytenoid existed. The two vocal cords presented the same dimensions. We dissected the recurrent nerve with care, and placed it immediately in osmic acid. Microscopic examination was negative. The nerve presented no sign of degeneration.

We pass now to the examination of the brain. The encephalon presented nothing remarkable externally. The bulb was separated at the level of the peduncles. The floor of the fourth ventricle was absolutely normal. Different bulbar sections proved that not the smallest lesion of these parts existed. The peduncles were also healthy. The cerebellum presented nothing particular. We exposed the cerebral cortex of both hemispheres, and to our great disappointment found not the least alteration of the frontal convolutions, either right or left. We then believed ourselves to have made faulty diagnosis. We, however, cut the left hemisphere first in slices which presented no lesion. We expected this since the laryngeal lesion was on the left. We then cut the right hemisphere, keeping the sections closer together, without following the classical oblique

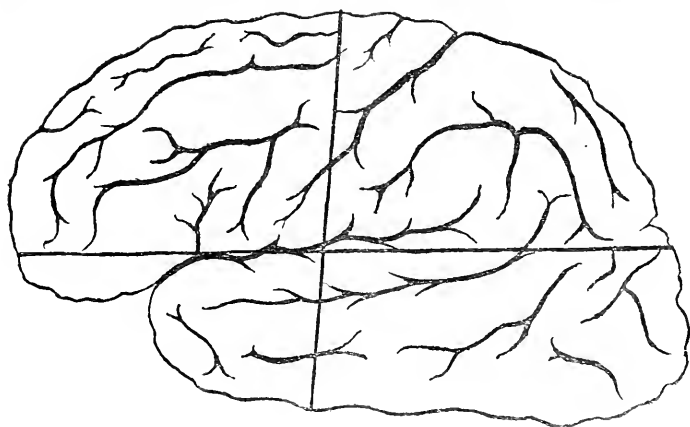


FIG. 2.

sections of Pitres. Our sections were all made nearly perpendicularly. We then discovered a small lesion starting above, from the foot of the first frontal convolution, traversing the middle of the ascending frontal and the inferior part of the ascending parietal. Figure 2 gives an idea of this section. We have represented the left hemisphere although we were dealing with the right hemisphere, but it is to compare more exactly with the classical sections of Pitres figured on the right hemisphere. The reader in comparing Fig. 2 with the plate of Pitres will remember that our section commenced above at the level of the superior portion of second pediculo-frontal section of Pitres, and terminated below at the level of the inferior point of the section called parietal, of the same author. In the section thus determined we found a small area of red softening, of recent date, as large as a pea at its upper part, and terminating in a point below. The total length of this was estimated at about 15 millimètres from top to bottom. Its greatest upper extremity was only about 8 millimètres. In this area the nervous substance was completely disorganised, and had the appearance of red pulp. This area of softening was situated in the superior internal part of the lenticular nucleus (Fig. 3). It encroached slightly from one to two

millimètres upon the external part of the internal capsule, but only in the upper half of the lesion. We desired then to follow exactly the nature of the lesion by a horizontal section analogous to that of Flechsig. We had some trouble at first to establish the bearings, the anterior part of the brain being reduced into multiple sections, but as the posterior part of the hemisphere remained entire, we had all that was necessary to indicate the seat of the lesion by horizontal section. Fig. 2 indicates the direction we gave to our horizontal section. We have, moreover, by many trials upon other brains, verified the exactitude of our section, vertical and horizontal.*

Fig. 4 shows the nucleus of softening in the lenticular nucleus up to the level of the knee of the internal capsule, involving thus even the most external fibres of the internal capsule.

We had, therefore, a fact of extreme rarity, from which it was possible to draw important conclusions as to the intra-cerebral path of the motor laryngeal fibres. We will repeat here what we have already said upon the subject of the first observation, viz., that we will insist upon the existence of *pure laryngeal hemiplegia* without any other kind of paralysis, either of limbs, face, or arch of the palate. Circumstances occurred, so that by accident the motor fibres of the larynx only became involved. As we have before remarked, this case has not been only an anatomical work, but the verification of a diagnosis made during life, thanks to the laryngoscopic examination. Without doubt, we committed an error in thinking of a cortical lesion, but we were right in affirming a lesion of the opposite hemisphere, and absolutely rejecting that of a bulbar lesion. We do not regret this, since it discloses a new horizon, and permits us to open up an entirely new chapter upon the path of the intra-cerebral motor laryngeal fibres. Indeed, just as, theoretically, it has been thought that the laryngeal motor centre ought to exist in the neighbourhood of the third frontal convolution near the other centres of

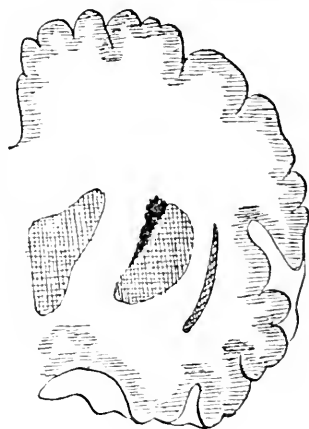


FIG. 3.

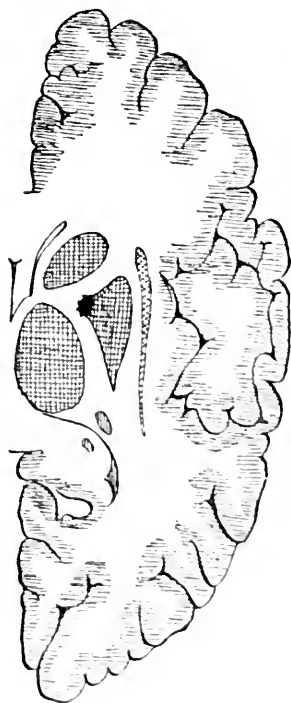


FIG. 4.

* We are indebted for the drawing of the plates to M. Bonnet, interne des hôpitaux.

language and speech, so it is right to conclude that the motor fibres of the larynx ought to occupy in the path through the internal capsule a situation analogous to the fibres which emanate from the before-mentioned centres. It is necessary here to review shortly the knowledge acquired as to the anatomical structure of the knee of the internal capsule. M. Grasset in his last edition (1886) has set forth these anatomical data in a clear and precise manner in his chapter on the semiological value of paralyses of the tongue. He avails himself of the work of Raymond and Artaud,¹⁰ relative to the intra-cerebral path of the hypoglossal nerve, and of the memoir of my excellent and learned teacher, M. Lépine, treating of a labio-glosso laryngeal syndroma of cerebral origin.¹¹ We will follow from the cerebral cortex the two fasciculi actually known up to the protuberance. In the cortex, according to their ten observations of glossoplegia of cerebral origin, Raymond and Artaud localise the hypoglossal centre in the foot of the ascending frontal, whilst the aphasic centre occupies the foot of the third frontal convolution. In the centrum ovale the path of the fibres furnished from these two centres is well known. It results from the case of pseudo bulbar glosso-labio-laryngeal paralysis of M. Lépine, and the cases of MM. Raymond and Artaud, that the fibres of the hypoglossal, of the inferior facial, and of the motor branch of the trigeminal, arise in the inferior frontal fasciculus of Pitres, whilst the conductors of speech are situated in the inferior pediculo-frontal fasciculus. At the internal capsule, in the horizontal section of Flechsig, we leave aside the posterior and anterior segments, occupying ourselves only with the knee of the capsule—that is, the geniculate fasciculus. According to the earlier work of Brissaud, this fasciculus contains the fibres for speech, the motor nerves of the tongue, of the face, and the palatine vault. Raymond and Artaud have gone a step further, and divided the geniculate fasciculus into two parts—the anterior, or fasciculus of aphasia, and the posterior, or hypoglossal fasciculus.

In the cerebral peduncle Brissaud assigns to the geniculate fasciculus a place upon the lower surface, between the middle and internal thirds. Raymond and Artaud differentiate here, the geniculate fasciculus into two distinct parts, making the fasciculus of aphasia pass in contact with the internal third of the peduncle, and the hypoglossal fasciculus with the middle third. But this peduncular localisation is not based upon any clinical proof. The pathway is unknown through the protuberance. Raymond and Artaud think that the fasciculi of the hypoglossal are directed towards the posterior and internal part of the pyramids. From thence they cross and reach the bulbar nuclei. With these data we may examine the indications resulting from the autopsy of our second case. Doubtless we cannot deduce from this complete data upon the total intra-cerebral pathway of the motor laryngeal fasciculus, but we have precise particulars of the most important part, viz., the path at the level of the

¹⁰ Raymond and Artaud: "*Archives de Neurologie*," tom. vii., 1884.

¹¹ Lépine: "*Note sur la Paralyse Glosso-Labiale Cérébrale à forme Pseudo-Bulbaire.*" *Rév. Mens. de Méd. et de Chir.*," 1877.

knee of the internal capsule. If we refer to the description of the lesion found at the autopsy we see that the most external capsular fibres of the geniculate fasciculus were damaged by the pathological focus. The belief may then be permitted that besides the fasciculus of aphasia and the hypoglossal fasciculus, there exists in the most external part of the knee of the internal capsule a definite motor laryngeal fasciculus; absolutely distinct and having its special place in the constitution of the geniculate fasciculus. Whether the fibres of the motor laryngeal fasciculus may have been involved and damaged by the focus or whether they yielded to a neighbouring influence, the complete autonomy of the laryngeal motor fasciculus remains an acquired fact in the present case. It is difficult to determine the question of a lesion of the lenticular nucleus. According to Grasset it is probable that the fibres for speech below the inferior pediculo-frontal fasciculus pass through the corpus striatum. Is it the same for the laryngeal motor fasciculus? We are not in a position to answer this question. We are persuaded that this observation will arouse objections and receive various interpretations. But one point is indisputable, viz., that this limited lesion determined a *pure laryngeal hemiplegia* without the least paralysis of any other muscular group. On this account alone, the case is of capital importance in the history of localisations.

In connection with the history of my first observation, it helps to throw a certain light on the complete study of the cortical motor laryngeal centre and the pathway of its fibres. We are contented with having assisted in bringing this question into important prominence. Indeed, the case of Rébillard and our two original observations are the three single facts of laryngeal hemiplegia determined during life with verification upon the cadaver. We have already indicated the little value of Rébillard's case. Bryson Delavan has had occasion to perform an autopsy upon a patient, in whom he had found laryngeal hemiplegia, but he found a bulbar lesion. We reproach him only with one thing—that is, his too hasty conclusion formulated in these terms:—"It would thus result—that "the theory sustained by Gottstein (that laryngeal paralysis of central "origin is due to a lesion of the bulb, and not the cortex) receives direct "confirmation from this fact, and that the localisation of the cortical "motor centre for the human larynx remains up to now uncertain." Bryson Delavan quotes as his support the analogous cases of bulbar paralysis published by Eisenlohr, of Hamburg.¹² But this proves nothing, except that there exist laryngeal paralyses, originating oftener from the bulb than the cortex. Jonathan Wright (*loc. cit.*) à propos of the case published by himself supports the conclusions of Delavan and Gottstein. As to the observation of cerebral lesions without autopsy, in which laryngeal hemiplegia has been recorded along with total hemiplegia, four only have been precisely studied; of this number two are the cases of ourselves. In our former work we had mentioned another case of hemiplegia of the larynx, appearing to have a cerebral origin, but this, from the absence of total hemiplegia, had only the restricted value of an hypothesis. We may say as much of the recent case of Massei. There exist other cases cited

¹² Eisenlohr: "Arch. für Psych., Berlin," Vol. XIX., 1888.

by Gerhardt, Mackenzie, etc., but none of them are precise enough to enter into the same category. Our task is not yet finished. If at the commencement of this memoir we have done justice to the objections raised by experimenters, we should be ungrateful not to cite the results of their patient researches. If there are divergences between them it is well to signalize them. We can prove that the results obtained, compared with one another, are favourable to the existence of a cortical motor centre for the larynx. The only question in doubt, moreover, is less the existence of a centre than whether the centre has a unilateral or bilateral action.

Before 1877 all physiologists agreed in placing the centre for phonation in the bulb. It is evident that when the movements should produce not merely a cry but articulated speech, a higher centre must be in action. At least, this is the opinion of Bristowe.¹³ As Rébillard remarks (*loc. cit.*), when a singer varies of his own will the tension of his vocal cords, or passes from the chest voice to falsetto, not only is the bulb in action, but a superior centre commands these difficult movements. Duret (Soc. de Biol., 1879) removed in a dog the region which Ferrier regarded as the centre for movements of the tongue and lips, and found that the dog lost the faculty of barking. In his thesis, in 1878, he cites other facts of the same kind. Soltmann,¹⁴ destroying with hot iron the pre- and post-frontal convolutions in a young dog, found that the result was that the animal could not bark, but emit only cries like a new-born animal. Hermann Krause¹⁵ first combined laryngoscopic examination with direct experiment. My colleague and friend, Lannois,¹⁶ has admirably reviewed the experiments of Krause, who concluded in favour of the existence of a cortical region—the *gyrus præfrontalis*—presiding over the movements of the larynx and pharynx. Semon and Horsley,¹⁷ in 1886, objecting to my first observation, made known the results of their experiments upon various animals. They confirm the conclusion of Krause as to the situation of the laryngeal centre in the *gyrus præfrontalis*. In the monkey this centre corresponds to the centre for language in man, *but it is bilateral and symmetrical*.

According to them, every excitation of one centre alone, determines bilateral action of the vocal cords, and they obtained the same result with either right or left hemisphere. The absence of aphonia in cases of aphasia would prove, according to them, that in man, the phonatory centre has a similar bilateral representation. From whence they conclude that my first case proves nothing. Without wishing to criticise rigorous conclusions drawn from the monkey or rabbit to man, we will reply that the clinical facts are there to refute such an assertion. According to such a theory, there ought never to be a single case of total hemiplegia

¹³ Bristowe: "Lectures on the Pathological Relations of the Voice and Speech." "Brit. Med. Jour.," 1879.

¹⁴ Soltmann: "Experimentelle Studien über die Functionen des Grosshirns der Neugeborenen." (Jahrb. für Kinderh., 1876.)

¹⁵ H. Krause: "Ueber die Beziehungen der Grosshirnrinde zu Kehlkopf und Rachen." (Du Bois Reymond's Archiv., 1884.)

¹⁶ Lannois: "Y-a-t-il un centre cortical du Larynx?" "Rev. de Méd.," 1885.

¹⁷ Semon and Horsley: "Paralysis of Laryngeal Muscles and Cortical Centre for Phonation." "Lancet," 1886.

(limbs and larynx); for if the lesion were unilateral, laryngeal hemiplegia would be impossible, if the lesion were bilateral, the larynx would be totally paralysed. But clinical facts prove the contrary. Quite recently the same authors¹⁸ have given under a provisional title the details of more extensive experiments upon the same subject. The *résumé* of their experiments is as follows:—

1. There exists in each hemisphere a centre for the bilateral representation of the adductor movements of the vocal cords. Excitation of parts more or less near to this point produces movements of adduction of the vocal cords less and less complete as the distance from the centre is increased.

We note, *en passant*, that the cat does not yield the same results as the rabbit.

2. It has not been possible to determine in the cortex any centre for abduction of the cords.

3. If one of the two cortical adductor centres be completely destroyed, so that excitation of the neighbouring parts produces no effects upon the larynx, no paralysis of the vocal cords is then observed. If afterwards, the opposite centre is excited there results bilateral adduction of the cords as complete as if the opposite centre was intact. Semon and Horsley conclude from these facts—

(A.) Unilateral excitation produces bilateral action. Then clinically an irritative unilateral affection of the laryngeal centre would produce spasm of the glottis, *i.e.*, bilateral adduction of the cords (*e.g.*, stridulous laryngitis).

(B.) Unilateral destruction of the centre produces no effect. Unilateral paralysis of the larynx from unilateral lesion of one hemisphere is absolutely impossible.

We shall not further follow the authors in quoting other experiments less directly connected with our subject. We only think it proper to quote their too absolute conclusions in order to put them in parallel with the earlier contradictory experiments of Masini. These experiments have been passed over in silence by Semon and Horsley; they deserve, however, to be known. All the experiments were made under the control of Professor Luciani. According to Masini there is no doubt of the existence of a laryngeal centre; but in opposition to Krause, who admits a precise and limited centre, he thinks that the centre is essentially diffused. According to him the larynx responds not only to excitations of the circumscribed zone of Krause, but to excitation of the same intensity applied to other motor centres. The fact is so true, according to Masini, that it is impossible to produce the phenomena of glottic paralysis without finding associated, paralysis of other important muscular groups (tongue, arch of palate, lips, limbs).

He has, however, observed isolated paralysis of a cord without affection of other muscles. He moreover admits that every portion of the motor zone of the glottis described by him cannot produce vocal paralysis with the same intensity, and he concedes that the area of

¹⁸ Semon and Horsley: "On the Centre for Motor Innervation of the Larynx." "Internat. Centralb. für Laryngol.," Feb., 1895. "Brit. Med. Journ.," Dec., 1889.

Krause represents the principal nucleus of this centre. Extirpation gave the same results as electric excitation. If only the nucleus of Krause is destroyed, glottic paralysis is less durable than when all the part situated in front of the *sulcus cruciatus* is destroyed. In order to obtain definite paralysis, the *post crucial* region has had to be destroyed, *i.e.*, nearly the whole of the so-called motor region. He adds, besides, that even after total bilateral destruction of the whole of the cortical motor zone, the loss of phonation is not permanent. In order to explain this phenomenon, he admits with Luciani, the existence of phonatory *sub-cortical* nuclei, capable of supplying the loss of the cortical centres. He then studies the question of the crossed or direct unilateral or bilateral relation of the laryngeal centre with the peripheral vocal organ. He bases his opinions on the hypothesis of Luciani and Goltz, who maintain that each half of the brain has bilateral relations with peripheral organs, but always recognises the predominating action of the crossed fibre. His experiments prove that in exciting the laryngeal centre with a very feeble current (scarcely sensible on the tip of the tongue) adduction of the vocal cord of the opposite side is produced. Paralysis of the cord of the opposite side is produced when the centre is destroyed. In order to produce bilateral action of the cords it is necessary to employ stronger currents. Then the vocal cord of the side opposite to the centre excited is put into complete adduction to the middle line, whilst the cord situated on the side corresponding to the centre excited has only an imperfect tendency to approach the mid-line, and this is simply because the direct fibres are less numerous than the crossed fibres.

From his experiments Masini draws the following conclusions :

1. The existence in the dog of a motor glottic centre in the anterior part of the hemispheres.
2. This centre extends to almost all the motor zone, although its focus of greatest intensity is limited to the laryngeal centre of Krause (base of the pre-crucial convolution).
3. The centre is neither isolated nor distinct, but is confounded with the other motor centres ; more intimately with those of the pharynx, tongue, velum, and less intimately with the others.
4. Unilateral lesion originates motor laryngeal affections predominating on the opposite side, and affections of sensibility of the mucous membrane.
5. A bilateral lesion produces a persistent paralysis of movement and sensibility without attaining the degree of absolute paralysis.

6. Besides the laryngeal cortical centres it is necessary to recognise the existence of sub-cortical laryngeal centres, if one desires to account for the perfect compensation of disorders resulting from unilateral ablation, and the absence of complete paralysis after bilateral extirpation.

We may now compare these conclusions with those of Semon and Horsley. It is seen that Masini has arrived at results which permit the comprehension of clinical facts, and explaining at the same time the facts resulting from the experiments of the English authors.

The whole question was to know if a cerebral cortical lesion could give rise to paralysis of one vocal cord of the opposite side. Masini

has proved experimentally that this fact was indisputable. In other experiments in which he has modified the intensity of the stimulus he has obtained the same results as Semon and Horsley—*i.e.*, bilateral action—on excitation or destruction of one centre only. The English authors have, therefore, given an interpretation to their experiments, which, though not erroneous, is incomplete, seeing only one part of the question. They have been entirely wrong in endeavouring on such proof to demolish the data furnished by clinical observation. All the cases of laryngeal hemiplegia of cerebral origin published up to now preserve their value. As to the question of the precise delimitation of the centre to Krause's area, or to a zone more or less extensive (Masini), this is perfectly disputable. It has already been proved that it is not always possible to guard against phenomena of diffusion of electric currents used to produce excitation. There is a vast difference from the precision of a lesion circumscribed accidentally and precise localisation from experimental excitation. It is, moreover, not well to push too far the comparison between animals and man, especially when dealing with an organ calling into action functions quite different in the two species.

Semon and Horsley themselves admit, as we have previously remarked, that they have obtained results quite different upon the cat, monkey, and rabbit. We have thought it right to enter into these details in order to present the complete state of the question. We desired also to demonstrate that experimentation may come to the assistance of clinical observation, but that it ought never to be allowed to supplant it.

We conclude from this work:—

1. There exists a cortical motor centre for the larynx in each cerebral hemisphere.
2. This centre is located at the foot of the third frontal convolution of the fissure which separates it from the ascending frontal.
3. The fibres originating from this centre pass to the level of the external part of the knee of the internal capsule, forming in the geniculate fasciculus, a motor laryngeal fasciculus, independent of the fasciculus for aphasia, and the hypoglossal fasciculus.
4. The laryngeal centre has a crossed action. Its destruction determines total paralysis of the vocal cord of the opposite side (cadaveric position).

A STUDY OF THE DIAGNOSIS AND TREATMENT OF MALIGNANT TUMOURS OF THE NASAL FOSSÆ.¹

By Dr. A. F. PÉQUEU, Ancien Interne des Hôpitaux.

MALIGNANT tumours of the nasal fossæ, under clinical aspects, are so different as to render their treatment singularly variable. Regarding them from a purely operative point of view, they may be divided arti-

¹ Translated from the Memoir in the "*Annales de Mal. du Larynx*," etc., March, 1890.

ficially into four principal groups. The first is that of pedunculated tumours; these are generally the result of epitheliomatous degeneration of neoplasms originally benign, adenomata, or mucous polypi; sarcomata, however, may from the first assume this form. The second group, which comprises tumours with a limited base of implantation, is less favourable than the former group for surgical intervention, but when situated near the orifices of the nares, upon the septum, on the floor of the nasal cavities, or on the inferior turbinated bodies, their ablation is performed under relatively easy conditions.

Diffuse tumours, on the contrary, which form the third group, either when they extend superficially, invading in their course a large portion of the mucous membrane, or when they extend deeply, sending processes into the underlying bones, necessitate operations which are grave and difficult. Only a matter of degree separates them from tumours of the fourth group, which are quite inoperable, and for which palliative treatment is the only resource. This palliative treatment is not only medical, but comprises surgical indications, amongst which it is necessary to mention especially the various means required for the arrest of hæmorrhage.

I.

(A) The diagnosis of pedunculated malignant tumours may present two special difficulties: 1. The distinction of such growths from benign pedunculated tumours; 2. The recognition of the existence and mode of insertion of the pedicle.

1. If, in most of these cases, rapid growth, acute pain, frequent hæmorrhages, fungating appearance, and friable consistence of the growth are certain signs of malignancy, other instances occur in which the affection presents characters less clear, and in which the observer may be led to believe in the presence of a benign tumour. It is especially when numerous tumours, previously removed, have presented all the appearance of ordinary polypi, or when those which are seen most distinctly possess this appearance, that the tendency is great to assume a favourable diagnosis, in spite of the exaggeration of functional affections which exists.

It must be remembered that it is unhappily pretty frequent after ablation of numerous benign polypi, adenomas or myxomas, to find new polypi appear, composed this time of epithelioma. It is essential also to remember that it is not rare to meet with malignant tumours side by side with ordinary polypi in the nasal cavities. Observations of this co-existence are not rare. Ricard² in his thesis upon the plurality of neoplasms relates two cases where along, with the presence of mucous polypi, co-existed epithelioma and sarcoma. Schaeffer,³ Hopmann,⁴ Terrier, and Voltolini, etc., have recorded similar instances. The previous or simultaneous occurrence of polypi obviously benign, even histologically, will not therefore prove that there is not at the same time a malignant production. It is the analysis of the functional troubles which will give

² Ricard: "Pluralité des Néoplasmes" (Thèse de Paris, p. 112 et 113.)

³ Schaeffer: "Deutsche Med. Wochs.," No. 3, 1892.

⁴ Hopmann: "Virchow's Archiv.," t. 13, p. 235.

the greatest value in cases doubtful from mere inspection. In doubtful cases it is best to act as if a clearly malignant growth were present. An opposite error, which is much more easy to avoid, must be here mentioned. Old myxomata near the orifice of the nasal fossæ may present a hard, fibrous, cutaneous appearance, very different from that of ordinary myxomata. This transformation appears most frequently in old subjects. In a patient, seventy-one years of age, whom we have observed in the clinic of M. Peyrot, the polypus, having submitted to this cornifying transformation, was also ulcerated and accompanied with muco-purulent discharge from its inferior surface. But the upper part, more protected against irritation, preserved its mucous appearance. Histological examination, practised after extirpation, did not, however, demonstrate any epitheliomatous degeneration.

2. When the tumour is very large, it is sometimes rather difficult to determine the existence and mode of insertion of the pedicle. The occurrence of a to and fro movement when the patient blows, may altogether fail, but earlier observation of this movement on the part of the patient has a certain degree of importance. Traction exercised so as to avoid hæmorrhage and endeavours to encircle the tumour, either with a probe or the ordinary steel wire, gives certain information. It is well to determine the mode of insertion of the pedicle, from the point of view of choice of operation, and of the nature of the tumour. A polypus inserted on the septum must, in fact, always be regarded as of malignant nature.

(B.) 1. There is a general rule which ought to dominate the ablation of pedunculated malignant tumours of the nasal cavities. Easy as it would appear to remove them with forceps, or to surround them with the wire snare, they ought never to be removed in this manner. It is always necessary to reach them by an external incision, which really gets at the pedicle. Ablation by tearing away is both incomplete and dangerous. In operating in this manner it is impossible to completely extirpate the pedicle; recurrences are almost fatal, even when the spot of implantation is scraped with the curette, or cauterised. Robin has recorded the case of a patient in whom a polypus was torn away three times by Roux, four times by Gosselin, and which ended at the eighth recurrence by invading the sphenoid, and causing death from meningitis.⁵ A patient of Bayer's after very numerous ablations of recurring polypi with the simple loop, the galvano-cautery loop, and the cutting curette, finally died from hæmorrhage and hepatic metastasis. Mason⁶ observed a case where a myeloid sarcoma of the septum recurred almost immediately after ablation with the polypus forceps; he endeavoured to remove it by a simple incision of the side of the nostril; a fresh recurrence followed, necessitating, three months afterwards, a more extensive ablation, re-opening the cicatrix of the first incision, and dividing the lip in the median line, and this time he obtained a cure which lasted for six years. It is superfluous, after this observation, to insist on the necessity, common to all cases of malignant tumours, of obtaining a sufficiently extensive ablation.

Renewal by tearing may, moreover, be dangerous. Without dwelling

⁵ "Gazette des Hôpitaux," p. 46, 1852.

⁶ Mason: "Lancet," 1st April, 1882.

upon the case so often cited of Del Grecco and Berlinghieri,⁷ where tractions, made through an error of diagnosis, upon a neuroma of the inferior maxillary nerve, mistaken for a polypus, led to fatal meningitis, hæmorrhage constitutes a grave complication in operating upon malignant tumours by tearing them away.

Even when the operation is performed with the galvano-cautery loop the operator cannot be sure of avoiding hæmorrhage. The operator is not protected by this method against secondary hæmorrhages, which are more frequent in the nasal fossæ, from the difficulty of obtaining complete asepsis. These tumours are, in fact, often extremely vascular. In a case of M. Terrier's removal of a simple fragment for the purpose of histological examination, sufficed to determine an abundant hæmorrhage. In a patient we have observed, in M. Peyrot's clinic, a first ablation with the forceps also determined a violent hæmorrhage. Ablation made some weeks after, by an incision through the naso-jugal furrow was, on the contrary, more easy and nearly bloodless. The pedicle was resected with the galvano-cautery, with the preliminary precaution that the branches of insertion were enclosed in a catgut ligature. It enclosed very voluminous bloodvessels.

2. For ablation of pedunculated malignant tumours very simple incisions ordinarily suffice, and which do not require to be pushed so far as in the case of non-pedunculated tumours, as we shall find presently. These incisions may be of two different types. They may be made in the naso-genial furrow; the separation of the ala of the nose is ordinarily sufficient by incision of the soft parts without the necessity of resecting the nasal bones; exceptionally the latter is required; as Dieffenbach did, the septum may be divided from its posterior insertions in order to favour the separation. The other method of incision is performed on the dorsum of the nose. Ordinarily Verneuil's plan is adopted, commencing at the root of the nose and terminating one-and-a-half centimètres from the lobule; two other incisions proceeding from the inferior extremity of the first to penetrate into the nostrils, in short an inverted Y incision. In unilateral pedunculated tumours one arm of the Y is omitted. It is very rare that it is necessary to divide the nasal bone. After the incision is made and the edge separated, endeavour should be made to reach the pedicle without dividing the tumour. Hæmorrhage from the latter cause may undoubtedly be more or less easily controlled by forceps. But the danger from this cause consists especially in the diffusion of cells and fragments of the tumour into the nasal cavities, thus favouring recurrences. The pedicle is cut as far down as possible, and a catgut ligature combined with section by thermo- or galvano-cautery gives the maximum of security.

II.

(A.) The diagnosis of malignant non-pedunculated tumours limited in their implantation must be made from the various benign tumours of the nasal cavities. Osteomata may, especially when they have arrived at considerable development, determine pain, repeated hæmorrhages, and suppuration, simulating the functional symptoms of malignant tumours.

⁷ Del Grecco and Berlinghieri: "Archives Générales de Méd.," tom. xxiii., 1er Série, p. 431.

From simple inspection their appearance, when the mucous membrane is greyish, may lead to confusion.

Fibromata are seen only in the naso-pharyngeal space, and the diagnosis of the prolongations which these tumours send into the nasal cavities, will be made by following their connections with the parent growth.

The diagnosis of these tumours which invade the nasal cavities secondarily, will be studied along with diffused nasal tumours.

Other affections, such as deviations of the septum, abscess of the nasal cavities, calculi, foreign bodies even, improbable as it might appear, have simulated malignant tumours. The thickenings of the septum described by M. Verneuil, and due probably to perichondritis, show a great resemblance to epithelioma. These enlargements appear during pregnancy, and disappear with its cessation. They are also frequently syphilitic. It is necessary always to recollect the possibility of syphilis in doubtful cases. Gummata are pretty frequent in the nasal cavities, and in some cases treatment is the only proof of distinction between an ulcerated gumma and an epithelioma. For palliative treatment according to Voltolini,⁸ one preparation in particular, viz., Zittmann's decoction, is of the greatest service in these doubtful cases.

A syphilitic chancre itself may resemble in appearance a malignant tumour. Moure⁹ has related a remarkable example where diagnosis was possible only from the co-existence of secondary affections. As to the tolerably rare tubercular lesions, they have, according to Schæffer¹⁰ and Nasse, a hard centre and soft circumference, and are present in the form of granulations. Pulmonary complications also co-exist generally. Lupus, when it exists simultaneously in the nasal fossæ, and upon the face is very easily recognised. Primary lupus of the fossæ, which Cozzolino¹¹ regards as pretty common, presents a fungous aspect, with characteristic indurated and livid nodules. We shall only refer to the ulcerations of chronic rhinitis and those which are observed in certain occupations,¹² especially amongst workers in chromates.

(B.) 1. The lateral and dorsal incisions which we have indicated for malignant pedunculated tumours suffice often for tumours limited in their implantation. Duplay,¹³ by incision of the naso-genial furrow, easily removed a sarcoma occupying the whole extent of the nasal fossæ, but not having yet invaded the bones. Verneuil,¹⁴ through an incision along the dorsal line of the nose and the side of the nostril, was able, by simply resecting the nasal bones, to remove a myxomatous enchondroma of the nasal fossæ, of the size of a fist. In another patient a long incision in the genio-labial furrow permitted him to remove all the antero-external face of the maxillary sinus, the upper branch and the external wall of the nasal fossa, which was invaded by a recurring epithelioma. These

⁸ Voltolini: "*Krankheiten der Nase*," Breslau, p. 225, 1888.

⁹ "*Annales des Maladies de l'Oreille, du Larynx*," etc., p. 371, 1837.

¹⁰ *Ibid.*, p. 415, 1887.

¹¹ *Ibid.*, p. 222, 1887.

¹² "*Mémoire de Delpsch et Hillairet*," Paris, 1876.

¹³ Duplay: "*Pathologie Externe*," tom. iii. p. 84.

¹⁴ "*Thèse de Métaxas*," p. 168, Paris, 1887; *Ibid.*, p. 7.

various incisions, therefore, allow of very extensive ablations. We shall further on study the methods which, along with complete luxation of the nose (method of Chassaignac, d'Ollicr, and Lawrence) allow in case of necessity a still more complete opening.

2. The difficulty is not to arrive at the tumour, but to obtain its complete removal, having regard to the anfractuosités of the nasal fossæ, the trouble of administering chloroform, especially from the movements of the patient—always more or less conscious—and hæmorrhage. A thorough tamponning of the posterior orifices of the nasal fossæ prevents the occurrence of one of the most alarming accompaniments of hæmorrhage, viz., the flowing of blood into the larynx.¹⁵ This hæmorrhage, not the less, continues to hide the operating field, and to compel the operator to work in the dark. In many of these operations these difficulties have not allowed of a regular ablation, and have forced the surgeon to be content with tearing away more or less summarily with the forceps, or of a section made through the tumour itself, with the galvanic loop or *écraseur*, the portions remaining behind being removed with the cutting curette or raspator. Difficulties of practice are doubtless difficult to conform to the exigencies of theory; one may, however, find that certain ablations give scarcely any chance of durable success. When a tumour is not removed *en bloc* besides the danger of neoplastic inoculation, the greatest risk is run of not completely finding the prolongations left behind. It is an absolute necessity to always carry the section into the healthy parts which surround the tumour. For the soft parts the galvano-cautery and galvanic loop are the most serviceable instruments; for bone, the chain scissors, cutting forceps, chisel and mallet, should always be employed. There are moments when the whole of the field of operation is suddenly obscured by hæmorrhage, the best means of arresting it is in tamponning for a few moments with iodoform gauze. Extensive applications of antipyrin in powder, also arrest these hæmorrhages pretty well.

3. After ablation of the tumour, followed by thorough antiseptic washing, the cavity should be tamponned with a tampon that can be withdrawn after suture of the separated nose. The best consists of a long thin mesh of iodoform gauze, with the extremity protruding from the nostril. Suturing of the nose is easily performed, and from the third day reunion, which takes place rapidly, is perfect enough to permit the withdrawal of the suture.

In cases in which ablation has not been absolutely complete, it is advantageous, as M. Verneuil has pointed out, to prevent immediate union. Rigorous surveillance can thus be exercised, and intervention may be made to destroy suspicious growths, which justify a fear of recurrence, as soon as they occur. There are often seen after the first few days, thanks to arrest of all hæmorrhage, portions which it is necessary to remove or cauterize. Local anæsthesia by cocaine will permit this to be easily done. For the purpose of subsequent supervision the dorsal incision is particularly convenient. M. Verneuil¹⁶ frequently employs the

¹⁵ Verneuil, "On bleeding in certain operations upon the face, and the proper means for diminishing its inconveniences."—"Archives Générales de Médecine," tom. xvi., p. 385, 1870.

¹⁶ *Loc. cit.*, p. 171, and following.

thermo-cautery, in order to combat the tendency to reunion. Definite separation, in order to obtain this reunion, is more or less prolonged. Reunion has been obtained at times varying from fifteen days to eighteen months, according to the observations of Metaxas. Along with the advantages of these late reunions ought to be signalled one of their inconveniences, that is, the annoyance which may be caused to the patient by the persistence of an open wound. Many surgeons,¹⁷ moreover, prefer to obtain reunion, and are content to watch for recurrences by frequent rhinoscopic examinations.

(c.) The ablation of certain limited tumours is performed with more or less considerable variations in the method, according to their situation. The small and common tumours of the septum may be removed by a naso-genial incision, as Richet has done in many instances. They can also, especially when occupying the inferior portion of the septum, be removed by the method employed by Leriche has follows :

The tumour removed by this surgeon¹⁸ was attached to the septum about half a centimètre above its free edge, it measured fifteen millimètres from front to back, and ten millimètres in height and circumference. It was probably a sarcoma (?) Leriche made two incisions, which starting each from one side of the subseptum crossed on the upper lip. The deep surface of the V thus obtained was detached with curved scissors which at the same time incised the cartilage up to the level of the tumour. A second incision parallel to the free edge of the septum released this which remained adherent by its anterior extremity. A bistoury released these adhesions which the septum had contracted after several cauterisations, with the left nares. Ablation thenceforward became easy with a few movements of the scissors. On the introduction of the finger into the nostril a small bead was found on the left side of the perpendicular palate of the ethmoid. In suturing the labial V Leriche replaced the little tongue of the under septum, it was thus below the circular loss of substance of the septum. Hæmorrhage was easily arrested by perchloride of iron. The æsthetic result was perfect. There were no functional disturbances, and the case was without recurrence more than a year after.

Tumours situated on the inferior turbinates have the advantage of being easily removed *en masse* with the turbinated and with very slight preliminary incisions. Tumours of the floor of the nasal fossæ often require more or less extensive resection of the palatine vault and buccal incisions.

(To be continued.)

¹⁷ *Vide* Verchère.—“Archives de Laryngo'logie,” 1887, No. 1.

¹⁸ Leriche: “Gaz. des Hôpitaux,” p. 578, 1874.

INSTRUMENTS, THERAPEUTICS, DIPHTHERIA.

Kuhn.—*New and Modified Forceps for Operations upon the Pharyngeal Tonsil.*

"Naturwissenschaftlich Medicinischer Verein in Strassburg, Nov. 8, 1889.

Michael.

Noltenius.—*Contra-Laryngoscope (Gegenspiegel) Removable from the Reflector for Demonstration of the Larynx, Naso-Pharynx, Nose, Ear, and for Auto-Laryngoscopy.*

SLIGHT modification of Bose's auto-laryngoscope.

Michael.

Cagney (London).—*The Administration of Certain Drugs by Electricity*

"Brit. Med. Jour.," Nov. 16, 1889. Harveian Society of London, Nov. 16, 1889.

THIS method is stated by the author to be best adapted for the treatment of diseases of the skin and mucous membrane, or of small tumours immediately beneath them, more especially those which indicated the use of iodine and iodide of potassium. It was stated to have proved very useful in syphilitic and other affections of the throat, and more particularly in chronic pharyngitis, in nodes and gummata in accessible situations, and in tubercular ulcers. It promoted absorption in enlarged strumous glands, and might be expected to prove of benefit in bronchocele and exophthalmic goitre.

In the application of the method, a very strong current was not necessary, but a sufficient current density was required, and the tissue under treatment must be brought directly in the path of the current. The electrodes might be either sponges holding solution of iodide of potassium or a modification of Dubois' conducting tubes filled with the fluid; by this means, the drug, which was not easily tolerated by every constitution, was conveyed directly to the part where its action was needed, and presumably in a condition of maximum activity.

The author gives the following instructions for the treatment of mucous surfaces: "The electrode might be made of a glass tube, which "could be filled with fluid, having a zinc wire introduced through the "bottom and the mouth, which might be cut to any desired curve) "blocked with a fine sponge. This was connected by means of the zinc "wire with one pole of a galvanic battery. The electrodes should be of "large surface area. The fluid should be a saturated solution of iodide "of potassium, and it ought to be supplied, where possible, at both "poles. Where this was not possible, the solution should be at the "negative pole. The current should be passed from ten to fifteen "minutes, and its strength would be determined by circumstances. Its "direction should be reversed every minute. Under suitable conditions, "the positive pole might be carried by a gold needle, which was plunged

"in a convenient situation beneath the skin. This expedient served especially in the treatment of strumous glands, and perhaps of "bronchocele."

The PRESIDENT (Dr. Buzzard) stated that he would take an early opportunity of testing this new method. *Hunter Mackenzie.*

Lange, Victor (Copenhagen).—*A Rare Case of Idiosyncrasy towards Tannin used for External Application.* "Hospitallstidende," Jan. 29, 1890.

A CLERGYMAN, suffering from chronic pharyngitis and rhinitis, was painted in the pharynx with a solution of tannin (1·15). Immediately after, profuse watery secretion from the nose, and considerable œdema of the soft palate and uvula set in. Shortly after an exanthema of urticaria developed, with general symptoms of *malaise*. The second day the patient was all right. The author had seen the same thing happen twice before on the application of tannin. *Holger Mygind.*

Ossendowsky, Alexandr J. (St. Petersburg).—*A Contribution to the Menthol Treatment of Pulmonary and Laryngeal Tuberculosis.* "Vratch," No. 3, 1890, p. 62.

FOLLOWING the suggestion by Professors D. J. Koshlakoff and N. P. Simanovsky, the author has undertaken clinical experiments on the menthol treatment in twelve cases of pulmonary, and in fifteen of laryngeal phthisis. In pulmonary phthisis, the drug was administered internally [R—Mentholi 5j; gummi arabici, sacchari albi lina 5ss. Mf. pil. No. 60. D. S. To take five pills a day, gradually increasing to 20, 30, and 40], and simultaneously in the shape of inhalations (from ten to twelve times a day, from Schreiber's or Simanovsky's apparatuses, or from an ordinary two-necked bottle). In laryngeal cases, paintings were made in addition (by means of Heryng's swab, with a from ten to fifty per cent. oily solution, once daily, or every other day, or twice a week, according to local reaction). The principal results obtained by the writer may be summarised thus:—

I. *Pulmonary Tuberculosis*.—1. As a rule (in eight out of twelve cases) the menthol course is followed by a considerable amelioration in the patient's general condition.

2. In the majority of cases, the remedy improves appetite, promotes easy expectoration, and gradually decreases the daily quantity of the sputa.

3. It never gives rise to any renal irritation.

4. Neither does it ever induce hæmoptysis.

II. *Laryngeal Tuberculosis*.—1. Menthol undoubtedly possesses a considerable analgesic action, the patient feeling a very marked relief for some while after each local application.

2. The paintings decrease local inflammatory phenomena, and disperse infiltrations.

3. They promote healing of superficial ulcers; they are, however, powerless to bring about cicatrisation of deep ulcerations.

4. Strong solutions (40 and 50 per cent.) sometimes may cause local irritation. Hence it is advisable to always begin with a 10 per cent. solution, and to increase the strength but more or less gradually.

5. To be successful, the local treatment must be always associated with a general one.

III. *The Influence of Menthol on the Stomach.* (Experiments on two phthysical patients and one healthy man.)—The remedy increases a general acidity of the gastric juice (which is usually lowered in phthisis), as well as the absorptive and motor power of the stomach.

Valerius Idelson.

Hope, S. Wilson (Petworth, Sussex).—*Treatment of a Common Cold.* "Brit. Med. Jour.," Nov. 9, 1889.

THE author recommends 20 grains of salicylic acid in liquor ammoniæ acetatis three or four times daily. Another writer recommends the local application of salicylic acid to the nose.

Hunter Mackenzie.

Ehrmann.—*Application and Effect of Trichloroacetic Acid in Diseases of Nose and Pharynx.* "Münch. Med. Woch.," 1890, No. 9.

THE author has applied the medicament as a caustic in 170 cases with good results. In a diluted state he has also applied it combined with iodylycerine as astringent medication, and is satisfied with his results.

Michael.

Lœffler.—*The Present State of the Question of the Etiology of Diphtheria.* "Deutsch Med. Woch.," Nos. 5 and 6, 1890.

THE author remarks that many other observers agree with him that the bacillus described by him in 1884 is the real micro-organism of this disease. Nobody doubts that the disease is a well characterised infectious disorder. In all cases of certain diagnosis, *intra vitam*, the author has found this bacillus. He then refers to the observations of other authors concerning this micro-organism. Not all authors believe yet that this bacillus is pathognomonic, because bacilli of similar aspect are also found in the oral cavity of diphtheritics which are not virulent, and because in the oral cavity of healthy children, and in cases of simple angina, bacilli are found similar in aspect and in virulence to this bacillus. It, therefore, will be necessary to continue the study of these different micro-organisms. He then refers to the paper of Wood and Formad (82)—experiments which have not yet been conducted according to modern methods of bacteriology; to that of Prudden (89), who has never found the Lœffler bacillus, but in twelve cases out of forty a streptococcus, which he views as pathognomonic. The author has often also found streptococci, but regards them not as pathognomonic, but as able to produce diseases similar to diphtheria. Inoculated upon animals, especially upon guinea-pigs, the bacillus produces great necroses of the skin, and, if the animals survive, paralysis of the extremities supervenes. At *post-mortem* examination inflammation of the lungs and the kidneys are also found. He then reports upon the effect of the extracts of the pure cultures. Their effect is toxic, but different authors describe it differently. On the intact mucous membrane of animals the bacillus does not produce similar effects, and probably not in man also. The author concludes with some statistical remarks.

Michael.

Virchow.—*Diphtheria in Berlin.* "Berliner Med. Gesellsch.," March 12, 1890.

THE author showed tables dealing with the propagation of diphtheria in Berlin in the years 1883 to 1888. Every year the number of cases has diminished (from 8628 to 4108). Fatal cases have diminished from 2655 to 1018.

Michael.

Brunner.—*Treatment of Croup and Diphtheria.* "St. Petersburg Med. Woch.," 1890, No. 6.

THE author recommends local antiseptic brushing and gargling, applications of steam, warm baths, and diaphoresis.

Michael.

Roos (Finland).—*The Treatment of Diphtheria with Creolin.* "Finska L. Handl.," March, 1889, p. 262.

THE author recommends a two per cent. solution of creolin as a gargle in cases of diphtheria.

Holger Mygind.

Hallager, Fr. (Denmark).—*Diphtheritic Paralysis.* "Hospitalstidende," Jan. 22, 1890.

THE author reports a case of a man, aged twenty-two, who, after a severe attack of diphtheria, had paralysis of the velum and accommodation. A month after anaesthesia of the toes began to develop, later on accompanied by pareses, first of the inferior, and then of the superior extremities. Dr. H. stated that anaesthesia existed on the first examination upon the left underarm up to the elbow, and on the right underarm to a little above the middle, and on both thighs to a little above the middle. There was also loss of patellar reflex, while the skin reflexes were normal. The anaesthesia disappeared by degrees, the upper edge moving gradually downwards. The symptoms described point distinctly to an affection of the medulla by the diphtheritic poison.

Holger Mygind.

Meierovitch, Fedor M. (Kovno).—*Tracheotomy in Croup and Diphtheria.* Proc. of the Kovno Med. Soc. for 1889, p. 34.

DURING 1886-7 the author performed 25 tracheotomies with 16 (64 per cent.) recoveries, and 9 (36 per cent.) deaths. Of 11 cases (all boys) operated upon for croup, 9 (81·8 per cent.) recovered, 2 (18·2 per cent.) died. Of 14 cases (8 boys, 6 girls) operated upon for diphtheria, 7 (50 per cent.) recovered; 7 (50 per cent.) died. Of 9 private patients operated upon under bad hygienic conditions, 5 recovered; 4 (44·5 per cent.) died; of 8 well-to-do patients, 5 recovered, 3 (37·5 per cent.) died; of 8 hospital patients, 6 recovered, 2 (25 per cent.) died. As regards the age, the results were as follows:—

1 to 2 years,	3 cases;	0 recoveries,	3 deaths.
2 " 3 " "	3 " "	2 " "	1 " "
3 " 4 " "	6 " "	5 " "	1 " "
4 " 5 " "	7 " "	3 " "	4 " "
5 " 7 " "	6 " "	6 " "	0 " "
	<hr/> 25	<hr/> 16	<hr/> 9

Of 25 cases, in 3, high tracheotomy, in 4, middle, and in 18, lower, were performed. The lower operation is generally preferred by the author, its

advantages being : (1) The trachea may be exposed more freely ; (2) it is opened at a considerable distance from the larynx (which is especially important in diphtheria) ; and (3) granular vegetations develop by far less frequently than in the case of high operation. In simple cases the author removes the cannula on the sixth or eighth day after the operation, replacing it with a fenestrated tube ; the latter is removed as soon as the patient becomes able to breathe freely, with its external opening closed for 24--48 hours. Of complications, the following were observed : (1) In 2 cases the diphtheritic process spread to the wound on the second day ; (2) in 1 croupous case profuse tracheal hæmorrhage occurred on the eighth day in consequence of decubitus caused by the cannula ; (3) in 1 case the cannula could not be removed until 14 months after the operation, in consequence of granular vegetations above the wound, necessitating ultimately galvano-cauterisation. All the 4 patients recovered.

Valerius Idelson.

MOUTH, TONGUE, PHARYNX, ŒSOPHAGUS, &c.

Barker.—*Macroglossia.* "Brit. Med. Jour.," Apr. 5, 1890. Path. Soc.

THE author described in detail the condition of a tongue, the greater part of which he had removed from a young child some years ago with complete relief. The diagnosis had been lymphangioma cavernosum, and blue colouring matter was in readiness for injection of the lymph spaces immediately after operation. The tongue presented generally a lumpy papillated surface, the eminences on its surface having almost a translucent appearance, probably due to the presence of the distended lymph spaces underneath the papillary layer. These spaces were found to be quite irregular in shape and distribution in relation to the various components of the tongue. They penetrated everywhere except actually into the epithelial covering of the organ. The muscle bundles were to a certain extent separated by them, and by more or less exudation or lymphoid tissue. In most cases long branched lymphatic vessels extended up between the papillæ. The muscle fibres appeared normal in size, but slightly irregular in arrangement, owing to the new tissue between them. The condition was congenital, but had been greatly exaggerated by acute and sub-acute attacks of glossitis from time to time. There had been no recurrence since operation, and the shape of the tongue was excellent. An examination of the specimen simply confirmed the views expressed by the author of the paper in his article on the *Disease of the Tongue*, in Holmes' "System of Surgery," viz., that macroglossia is, in the majority of cases, due to lymphangiectasis alone, with but little change in the other structures of the organ.

R. Norris Wolfenden.

Hutchinson, J., Jun.—*Lymphatic Naevus of Tongue.* "Brit. Med. Jour.," April 5, 1890. Path. Soc.

THE author exhibited sections illustrating lymphatic naevus of the tongue

obtained by excision from the dorsum of the tongue of a child. The condition could be recognised during life by the presence, at some point on the dorsum, of a cluster of large papillary processes, which showed here and there distinct vesicles. The latter were translucent, and if pinched allowed of the escape of clear fluid (lymph). They were usually largest close to the surface, and might easily by accident become full of blood. There was a tendency to recurrent attacks of inflammation in the area affected, as in the case of macroglossia, but apparently in lymphatic nævus the muscular substance of the tongue did not contain dilated lymphatics, or only in its most superficial part. On section the spaces were seen to have a distinct wall, presenting endothelial cells, and were often full of lymph coagulum. There was probably new formation as well as dilatation of pre-existing lymphatics in this condition, which was allied to that figured by Mr. Hutchinson, sen., in the "Medico-Chirurgical Transactions," Vol. LXVIII. Specimens of lymphatic nævus obtained from a young man under the care of Mr. Treves were also referred to. In this case the condition had existed as long as he could remember.

Mr. W. J. COLLINS had recently seen a case of lymphatic œdema which was not congenital. It occurred in a young woman, and gave rise to great deformity, as it caused the skin to bulge outwards and the mucous membrane inwards. So a plastic operation was performed. He asked Mr. Hutchinson why he considered that some of his cases were congenital.

Mr. BOWLEY thought that there might be some confusion about these cases, owing to the fact that they were commonly known under the name of nævus of the tongue. They were really lymphangiomata, and it would, he thought, be advisable to drop the term lymphatic nævus altogether. He agreed with Mr. Hutchinson that the majority of the cases were congenital.

Mr. HUTCHINSON agreed that lymphangioma was a more appropriate, although a more clumsy, term. He had used the word "congenital," as the earliest conditions of the disease were almost undoubtedly present from the first, and in one of his cases the patient could remember the presence of an enlarged place on his tongue from his earliest boyhood.

R. Norris Wolfenden.

Sievers, R. (Finland).—*Three Cases of Rumination in Human Beings.* "Finska Lähare Sällskapet Handlingar," May, 1889.

(1.) A NURSE, aged twenty-seven, belonging to a nervous family, had for the last ten years ruminated her food. This anomaly began after a sea voyage, during which she had been very sea sick. The patient suffered from nervous debility, but was otherwise in good health. The rumination ceased entirely after a few months' treatment by dieting and alkalis.

(2.) A clergyman, aged sixty, himself healthy, and of a healthy family, whose father, aged eighty-eight, also ruminated, had, as far back as he could remember, been subject to this peculiarity, which did not cause him any inconvenience. No treatment.

(3.) A Jewish lady, aged thirty, of a very nervous but otherwise healthy family, whose father had been a ruminator, and whose brother was now and then subject to the like abnormality. The patient refused to undergo treatment, as any attempt to stop the ruminations caused her to feel ill.

Holger Mygind.

Goodwillie.—*Cases of Hare-lip and Cleft Palate.* "New York Med. Jour.," March 29, 1890. New York Acad. of Med.

THE author exhibited models of two cases of hare-lip which had occurred in a family of children in which there had been altogether four double hare-lips and one cleft palate. In one of the cases, that of the cleft palate, a great deal of bony hypertrophy and hypertrophied tissue was thrown out, entirely filling the cleft between the hard and soft palates. This it had been necessary to remove before staphylorrhaphy could be performed. It was well in these cases—in which the vomer was absent, its place being taken by hypertrophied tissue or bone—only to leave such amount as would correspond with the vomer, if that were in position. Carving too much material away would produce a nasal resonance to the voice.

R. Norris Wolfenden.

Thorburn.—*Epithelioma of the Tonsil.* "Brit. Med. Jour.," Apr. 19, 1890. Manchester Med. Soc.

THE author described a case (which was shown at a previous clinical meeting) of epithelioma of the right tonsil and fauces which had spread to the soft palate, mucous membrane of both alveoli, and base of the tongue, and was accompanied by an enlarged gland in the neck. The entire growth was removed by pharyngotomy on December 18th, and a small patch of recurrent growth on the soft palate on January 31st. Since then the patient had remained well.

R. Norris Wolfenden.

Bernard (Liverpool).—*Case of Syphilitic Phagedæna of Soft Palate and Tonsil.* "Liverpool Med. Chir. Jour.," Jan., 1890.

THE case is described of a young man presenting indurated chancre of the genitals, which disappeared under treatment with two grains of hydrarg. cum cretâ twice a day, and application locally of ung. hydrarg. dil. Six months afterwards the left tonsil was deeply ulcerated, and covered with an ashy-grey slough, and a similar condition of the soft palate of the same side existed, with great pain and difficulty in deglutition. Mercury was discontinued, the parts freely cauterised, and quinine given with nutritious diet. The phagedænic condition increasing, the parts were again cauterised. The phagedæna increased alarmingly. Change of air, one-twentieth grain of hyd. perchlor., with three grains of iodide of potassium twice daily, and gargle of diluted tincture of belladonna and tincture of opium, were given. The parts somewhat improved. The mercury was increased to one-sixteenth grain twice daily, and the parts slowly and gradually became normal, and about six weeks after first coming under treatment the sloughs detached, and cicatrisation came on. The loss of substance after healing was only trifling, and not in proportion to the severity of the earlier symptoms. The author concludes with some

remarks upon the satisfactory result of change of air, and the benefit of mercury at an early stage in small and continuous doses.

R. Norris Wolfenden.

Onodi.—*A Case of Chronic Fibrinous Pharyngitis.* "König. Gesellsch. der Aerzte in Buda-Pesth," Feb. 22, 1890.

CASE shown.

Michael.

Otto.—*A Congenital Hairy Pharyngeal Polypus.* "Virchow's Archiv.," Band 115, p. 272.

THE author refers to a case of hairy, pharyngeal polypus operated upon by him seventeen hours *post-partum*. He only found three similar observations in literature. The polypi were always pyriform, situated behind the velum, covered with skin and hair. The author regards these neoplasms as rudimentary epignathi.

Michael.

Lublinski.—*Primary Cancer of the Pharynx.* "Berliner Med. Gesellsch.," March 12, 1890.

THE author showed a case of cancer of the lower part of the pharynx. The existing paralysis of the glottis was very similar to that produced by an affection of the arytenoid cartilage. The author believes that the posterior plate of the cricoid cartilage is a special spot of predilection for carcinoma.

Michael.

Gerber.—*Pharyngo-Nasal Syphilis.* "Archiv. f. Derm. u Syph.," 1889, xxi. 475. SUFFICIENT attention to syphilis of the naso-pharynx has not been given by writers, either upon syphilis or diseases of the nose and throat; and that usually such writers describe only those lesions of grave character occurring in syphilis in which the deeper structures are affected. He cites some twenty-five cases of lesions of the naso-pharynx, and says that it is very difficult to give a general description of the malady, as each case is peculiar in itself. As principal symptoms, pain in the throat, difficulty in swallowing, pains in the ears, and defects of hearing may be given. Syphilis of the naso-pharynx may be present without any recognizable alteration in the pharyngo-oral cavity, even without the inflammatory swelling of the velum and the change of colour of its oral surface that have been considered as pathognomonic of syphilis. These occur only with deep ulceration of the nasal surface of the velum. When the mouth and lower pharynx are also affected we have greater difficulty in swallowing solid food, and when perforation of the velum and palate takes place, fluid food gets into the nose, and we hear the nasal voice. The diagnosis of the early stage of naso-pharyngeal syphilis is difficult. The history of the patient can not be depended upon. Long-continued stoppage of the nose, nasal voice, loss of sense of smell, and factor, are not diagnostic of syphilis. More or less redness and swelling of the nose, and tenderness of the same, combined with unilateral headache, should awaken the suspicion of syphilis. Cachexia is another suspicious sign. The rhinoscopic examination is most to be depended upon in diagnosis. We find ulcerations specially upon the nasal septum, which not infrequently take the form of a furrow. Their floors, if deep, are

filled with granulations, or covered with disintegrated tissue, through which the probe readily passes to find uncovered cartilage or bone. The mucous membrane of the turbinated bones is swollen, sometimes like polypous masses. Perforation of the septum is met with later in the disease.

Pharyngo-oral syphilis seems to locate itself most frequently upon the velum, and after that upon the posterior wall of the pharynx. The tonsils are less often affected in late than in early syphilis. Pharyngo-nasal syphilis seems, by Gerber's statistics, to occur most frequently between the eighth and fourteenth years after infection, and least frequently between the third and eighth years. Of the 27 cases, nine had never had any anti-syphilitic treatment; only 6 had had thorough inunction treatment; 7 had had a few inunctions, while 5 had had either a few sublimate injections or some potassium iodide. Treatment by local and constitutional anti-syphilitic measures checked the disease.

R. Norris Wolfenden.

Bischof.—*Rare Case of Cancer of the Œsophagus.* "Münch. Med. Woch.," 1890, No. 12.

THE patient, sixty-seven years old, had an unusually large struma, dyspnoea, and difficulty in swallowing. The laryngoscope showed a reddish tumour of the size of a nut, covering the right arytenoid cartilage. The left arytenoid cartilage was œdematous. A great many enlarged glands were present. Death occurred shortly after. The *post-mortem* examination revealed a carcinoma of the œsophagus, suppuration of the thyroid gland, and a tumour situated on the arytenoid cartilage, without having any communication with the carcinoma. *Michael.*

Moore, Norman (London).—*Carcinoma of Œsophagus.* "Brit. Med. Jour.," Nov. 23, 1889. Path. Soc. of London, Nov. 19 1889.

EXHIBITION of specimen showing spheroidal cells in dense stroma, originating in the mucous glands, which involved the lower inch and a half of the œsophagus, causing a dense stricture. The patient was a woman, aged fifty-eight. The author remarked that carcinoma of the œsophagus was very rare in women, and another remarkable feature was that distinct symptoms had existed for sixteen months.

Mr. ROGER WILLIAMS objected to the author's description of the microscopical appearances. He considered that the alveolar spaces were lined with cubical and not with spheroidal cells. If this was so, it was one of the most rapidly fatal of all the forms of new growth.

Hunter Mackenzie.

Collins.—*Cancer of Œsophagus eroding Trachea.*—"Brit. Med. Jour.," Apr. 5, 1890.

THE author gave the following account of a specimen of this nature, which he showed: The patient, aged fifty, was admitted into the London Temperance Hospital on October 23rd, 1888. For two months he had suffered with dysphonia and cough with dysphagia, and had lost 21lbs. in weight. On admission, his weight was 8st. 5lb. He was emaciated, aphonic, with a persistent cough, and with mucous but not sanious expect-

toration. The respirations were strident and his breath was foul. On trying to swallow, fluids were returned. The dysphagia was urgent. The vocal cords would not approximate. On October 30th rubber quarter-inch tubing to the length of twenty-two inches and a half was passed down the œsophagus and left in until the next day, when it was removed, as it became blocked. On November 2nd an œsophageal bougie was passed, but was arrested thirteen inches from the teeth. A catheter was then passed the same distance, and, on its being withdrawn, air escaped. On November 6th a catheter was passed to twenty inches from the teeth; this passed the tracheal fistula, and the patient had milk through it. The patient died on November 8th. At the *post-mortem* examination the ulceration was found to begin two inches below the cricoid cartilage, and extended for two inches; there was little, if any, constriction. The trachea had been opened by the ulceration, and there was an opening one inch by three quarters. The rings stuck out like the ribs of an old wreck. The mediastinal glands were infiltrated, but there were no metastatic deposits.

The PRESIDENT asked if food had returned through the trachea, or if the expectoration had been thickened.

Mr. ROGER WILLIAMS asked what the duration of life had been after the onset of symptoms. This was, he said, a point of some importance, as it had been stated that the duration of these glandular carcinomata was much longer than that of the ordinary epitheliomata of the œsophagus, in which the course was very rapid.

Dr. VOELCKER asked Mr. Collins if he had any explanation to give as to the presence of the growth at the point where it was. It was generally stated that carcinoma of the œsophagus occurred commonly in three positions, namely, in the upper, middle, and lower portions. It had been his fortune to see six *post-mortem* examinations of cases of this disease within a short period. In four of these the cancer was exactly opposite the bifurcation of the trachea, and at the time he had been struck with this, and thought that it might have had something to do with the exact position of the cancer.

Mr. COLLINS replied, in answer to the President, that there had been no evidence of any return of food through the trachea. Though food material had undoubtedly reached the lungs by this channel, the expectoration had not thickened. In answer to Mr. Roger Williams, he said death had occurred within four months of the first onset of symptoms, so the case was undoubtedly a very rapid one. As to the cause for the position of the growth, he said that he had no explanation to offer.

R. Norris Wolfenden.

NOSE, NASO-PHARYNX, &c.

Brown, J. (Bacnp).—*A Case of Leontiasis Ossea of the Maxilla and Hyoid Bones.* "Manchester Med. Chronicle," Mar., 1890.

A MAN, aged twenty-nine, had suffered a painless enlargement of the jaw, dating from the ninth year of age. At the thirteenth year hypertrophy of the maxillary and malar bones became well marked. The hypertrophy was most rapid from the sixteenth to the twenty-fourth year, but lately has not been so active. The patient has always had good health, and been able to follow his occupation. The face is now much deformed. It is not symmetrical, the left malar and nasal process of the upper maxilla being larger than the right, and the right ramus of the inferior maxilla is larger than the left. During the last four or five years the enlargement has encroached upon the orbital, nasal, and oral cavities. The orbital fossæ are lessened, causing exophthalmia of both eyes



especially of the left; displacement of the left nasal duct, causing epiphora; narrowing of the nasal fossa, causing loss of smell, which has been absent for five years. The oral cavity is contracted owing to the enormous hypertrophy of the alveoli. The movements of the jaw are natural, mastication and swallowing being normal. Speech is slightly muffled. The tongue is not enlarged. Taste, sight, and hearing are good, and there is no enlargement of soft parts, which are freely movable over the bones. The skin over the left malar is tight and congested. The nasal cartilages are not enlarged. The body of the hyoid bone is enlarged more on the right than on the left side. The cranial bones are normal. The patient's personal and family history are good. A case was described by Bickersteth (Pathological Society, Vol. XVII.) of "peculiar disease of the cranial bones, of the hyoid bone,

and of the fibula," the hypertrophy proving fatal at the thirty-fourth year. The orbital, nasal, and oral cavities were much encroached upon, and the four wisdom teeth were absent. (In the present case the wisdom teeth were also absent, and the vascular supply which should have gone to them has probably been diverted to promote simple hypertrophy of the alveolar process.)

Bland Sutton recorded a case in the Clinical Society's Transactions for 1889, and these are the only cases the author knows of in English literature.

At first sight the condition might be mistaken for acromegaly, but there was no hypertrophy of the hands or feet, or overgrowth of tissues over the bones of the face.

R. Norris Wolfenden.

Schulten (Helsingfors).—*A Case of Fibro-Sarcoma, originating from the Spheno-maxillary Region.* "Finska Läkaresällskapets Handlingar," March, p. 271.

A TUMOUR of the structure and situation above described, was removed from a lad by means of a sharp spoon introduced through the nose, which was dilated by incision. The operation was accompanied by profuse bleeding, from which the patient (otherwise well) recovered shortly.

Holger Mygind.

Bark.—*Intranasal Growth.* "Liverpool Med. Chir. Jour.," Jan., 1890.

THE patient, a man, aged forty-one, had suffered for eight months from obstruction of the left nostril. A dark-red papillated growth, bleeding freely on touch, was seen to protrude from the left narial aperture, and had caused some bulging outwards of the left nasal bone. It was attached to the outer wall and roof of the left nasal fossa, the septum and floor being quite free. The growth projected into the vault of the pharynx. A section snipped off and examined microscopically showed the growth to be composed of "an irregular glandular structure of doubtful nature." Mr. Bark proposed to remove the growth by partial excision of the superior maxilla, and to report further after operation.

R. Norris Wolfenden.

Phillips.—*Large Turbinated Growth complicated with Cleft Palate.*—"New York Med. Jour.," Mar. 29, 1890. New York Acad. of Med.

THE author presented a patient with a large turbinated growth, complicated with cleft palate, upon which he proposed to operate by first removing the inferior turbinated bones and then doing staphylorrhaphy.

N. Norris Wolfenden.

Nichols.—*Hypertrophy of the Turbinated Bones.* "New York Med. Journal," Mar. 29, 1890. New York Acad. of Med.

THE author demonstrated the case of a patient upon whom he had operated several times, at different intervals, for severe cough and asthmatic seizures. The operation had consisted in the removal of hypertrophied turbinated bones, and a quantity of adenoid tissue. The patient's condition had been improved for a short time only, the paroxysms invariably returning. The last operation had been performed some three weeks previously. There was an interval of comparative comfort, but

at present the condition could not be said to have been improved. Another patient exhibited by Dr. Nichols presented almost total destruction of the soft palate and uvula, with thickened epiglottis. There had been no pain at any time. There was no history of syphilis or tuberculosis. The patient had been under treatment for several years without benefit. Despite the history, the opinion of the gentlemen present was that the disease was probably syphilitic. The case has just come under the care of Dr. Nichols, and he said that he intended to put the patient upon vigorous anti-syphilitic treatment. *R. Norris Wolfenden.*

Schmiegelow, E.—*Cysto-Pneumatic Expansion of the Middle Turbinated Bone.*
"Ugeskrift for Laeger," February, 1890.

THE author reports three clinical cases of the above mentioned abnormality, described by Zucherkanndl in his work (p. 29).

1. The patient, a woman aged forty, had suffered from neuralgia of the left side of the face for about seven or eight years. Two years previously a polypus had been removed from the left side of the nose, with some amelioration of the symptoms. The highly expanded anterior extremity of the middle turbinated bone was punctured with the galvano-cautery in several places, and the parts between were cut with scissors. About a month later the patient was doing well.

2. A woman, aged forty-six, had suffered from coryza and pains in the head for ten years. After the removal of several polypi originating from the middle turbinated bones, these were found greatly expanded. Destruction by galvano-cautery, and removal with cold snare. The patient did well for six months, when the polypi returned.

3. A lady, aged thirty-three, with frequent attacks of nervous headache. These disappeared after the removal, in the manner above described, of the right, largely expanded, middle turbinated bone (4 centimètres long and 1 wide). In this case the mucous membrane of the middle turbinated bone was polypoid, degenerated on its outer surface (the microscopic examination revealing, however, no abnormality of structure), while its interior surface was covered with a smooth mucous membrane, which was microscopically found to be invested with a ciliated epithelium, and contained no glands whatever. *Holger Mygind.*

MacKenzie.—*The Relation of Nasal Obstruction to Respiratory Neuroses.*
"New York Med. Jour.," Mar. 29, 1890. New York Acad. of Med.

THE author made some remarks on this subject. He said that, though this subject might be considered worn threadbare with the quantity of literature and the frequent discussions on the question, we were really just beginning to discover something by which to arrive at a definite knowledge in regard to the etiology of these troubles. There was no doubt of the relation between nasal diseases and asthma, but the asthma was a symptom and not a disease *per se*. These respiratory neuroses were caused by many things. Irritation of the vaso-motor nerves of the naso-bronchial tract was one of the factors. Vascular changes in the upper air-passages had their effect upon the nervous system, acting pretty much as did an attack of epilepsy. It was a well-known physiological

law that there was intimate sympathy existing between every part of the respiratory tract, and that irritation of one part produced evidences of it in another. The example given was that of sympathetic coryza. Instability of the nervous apparatus might be inherited or acquired. It was to these facts that the frequent nervous explosions were due, and not to some special local lesion situated in the respiratory tract, as was believed by some to be the cause. Asthma might be brought about by some obstructive lesion in the nasal passages, or the asthma might be the cause of the obstruction, or, on the other hand, the growth might be purely accidental. The statement that asthma did not exist without some obstructive lesion in the nose was absurd in the extreme.

Dr. BOSWORTH could not understand why asthma was not called a disease, as no one knew what was meant by nerve explosions, reflexes, neurasthenia, epilepsy, and many other such vague terms. To him the condition which existed during an attack of asthma was perfectly clear. It was one of pure hyperæmia, brought about by vaso-motor paresis. The lesion in a paroxysm of asthma was a vaso-motor paresis of the blood-vessels supplying the bronchial mucous membrane. The blood supply in the nose was regulated by the same vaso-motor tract as that which regulated the supply of the bronchial tubes. It was very easy to be seen why a diseased condition in the nasal cavity caused attacks of asthma. There were factors to be considered in the causation of such tendencies. First, a nervous condition was necessary; secondly, some obscure atmospheric influences; and, thirdly, a predisposition. It was also necessary for some diseased condition of the nasal passages to exist prior to the development of such attacks of asthma. He also stated that in all cases of asthma which had come under his notice, obstructive lesions of the nose were found. While all of the cases were not cured, by operations or treatment directed to these parts, from sixty per cent. to seventy per cent. had been cured and the remainder made more comfortable.

Dr. ROBINSON agreed with Dr. MacKenzie in the statement that a super-sensitive condition of the respiratory tract must exist in these cases, but it was also a fact that in many pronounced cases the pathological lesion could not be found. It was also true that in many instances there were lesions to be found in the nasal cavities. He could not agree with Dr. Bosworth when he said that obstructive lesion of the nose was necessarily present, and that asthma was a disease and not a symptom. He thought that such a statement was erroneous, and that the work was expended in the wrong direction which led to any such conclusion. There was no question but that asthma was a symptom of some disease, and the condition which produced it might reside anywhere in the body or on the skin. It was a fact that most people had a more or less obstructive lesion of the nose, which, unless they passed into the hands of a specialist, would probably have caused them no trouble whatever. It was too bad to believe that all of these people would have to go through some form of operation either to cure or prevent asthma. The speaker related his experience, and that of some other rhinologists in operations upon the nose for the relief of asthmatic paroxysms, and said that in all cases the

trouble was not benefitted, and the paroxysms returned with greater severity than before.

Dr. DELAVAN thought that the subject was far from clear, and therefore he did not state any definite views. He said that an idea had been lately advanced as to the bulbar origin of these troubles which he thought was well worthy of consideration.

Dr. A. H. SMITH said that there were two factors to be considered in the causation of asthma, and those were predisposing and exciting. The predisposing might be hereditary or acquired, and the exciting principally reflex in its action. And of the reflexes, which had such wide distribution, the most common one was that from errors in diet. The condition of spasm of the muscular fibres in the bronchial tubes was brought about by irritation and reflex action from the pneumogastric nerve and its bronchial branches. He thought it was irrational to suppose that a lesion must exist in the nasal passages when asthma was present. He had seen some of the most severe paroxysms produced by errors of diet.

Dr. MACKENZIE closed the discussion by stating that his treatment in these cases had been uniformly successful, and that his efforts were directed to improving the patient's general health, and if any special lesion existed, this was corrected as far as possible.

R. Norris Wolfenden.

Abramson, J. G. (Kovno). — *Reflex Neuroses of Intranasal and Pharyngeal Origin.* Proceedings of the Kovno Med. Soc. for 1889, p. 36.

THE author furnishes details of the following instructive cases :—

1. *Epilepsy.*—A girl, aged thirteen, daughter of a hysterical mother, since six years of age had suffered from nightly epileptic attacks, recurring three or four times a week, notwithstanding the usual treatment. Breathing with open mouth. Examination revealed chronic hypertrophic rhinitis, with a very considerable enlargement of the left two lower and the right middle turbinated bodies. Eight cauterisations with chromic acid in the course of three weeks led to cessation of fits for four months, when she caught a violent acute coryza, and had a fit. Complete cure after further three cauterisations. (About one year and a half elapsed without any fits.)

2. *Catalepsy.*—A girl of thirteen, with hysterical family history. Severe cataleptic fits occurring, one after another, for two days. On examination there was detected nothing abnormal beyond chronic rhinitis, with enormous hypertrophy of the lower turbinated bodies. The treatment consisted in painting with a five per cent. solution of cocaine, and syringing out the nasal cavities with soda and boracic acid; both twice a day. An immediate and complete cessation of the fits. Cure lasting for a year.

3. *Bronchial asthma.*—A woman, forty-six years old, with most obstinate asthmatic paroxysms recurring almost every night and day for four years in spite of all treatment. On a careful examination nothing abnormal, except chronic hypertrophic rhinitis, could be made out. Cauterisation with chromic acid. A striking improvement after three sittings, and complete cure after six. (One year and a half passed without recurrence.)

4. *Migraine*.—A girl of nineteen, with frequent hemicrania (sometimes right-sided; at other times left-sided), of a twelve-month's standing. Nothing wrong beyond hypertrophy of the lower turbinated bodies. A complete cure after eight applications of chromic acid.

5. *Hiccough*.—A boy, eight years of age, with hiccough lasting all through the day (but ceasing at night) for four weeks. Pharyngitis granulosa. After two paintings with a three per cent. solution of cocaine hiccough disappeared. No relapse.

6. *Hiccough*.—A boy of ten. Agonising hiccough depending upon granular pharyngitis. Cured by a single application of the cocaine solution.

Valerius Idelson.

Schmidt.—*The Question of Treatment of Empyema of Cavities with Hard Walls.* "Berl. Klin. Woch.," No. 7, 1890.

CONCERNING empyema of the antrum of Highmore, the author has observed that in some cases it is possible to cure the patient by cleansing through the natural opening, as recommended by Hartmann, but in most cases it is necessary to extract a tooth, and to treat through the alveolus.

Michael.

Baber, Cresswell.—*Epistaxis, etc.* "Brit. Med. Jour.," Apr. 19, 1890. Brighton and Sussex Medico-Chir. Soc.

NOTES were read of two cases of epistaxis in which the hæmorrhage came from a point on the septum, and was promptly checked by treatment directed to the bleeding spot. Thorough examination of the cavity of the nose in cases of epistaxis was too often neglected, and plugging of the posterior nares consequently resorted to unnecessarily. The author also passed round an excellent photograph of a young lady in whom he had successfully removed some scrofulous cervical glands, and asked the experience of members of this operation, and also how far irrigation and drainage tube were desirable.

R. Norris Wolfenden.

Moure.—*Papilloma of the Nasal Fosse.* "Archivos Internacionales de Laringologia, Otologia, Rinologia," etc., Feb., 1890.

THESE tumours are supposed to be rare. Hopmann has seen them 14 times in 100 polypi of the nose, Schaeffer 20 times in 182 cases of nasal tumours. These authors have, however, included true papillomas, angiomas, adenomas, papillary sarcomas, in their descriptions. Papillary excrescences are often seen, but true papillomata very rarely. They develop at adult age, and commonly after chronic coryza. They resemble, histologically, inflammatory buds, and are clothed with epithelium, either cylindrical or squamous, a connective tissue stroma and a vascular loop. They are ordinarily situated at the anterior and inferior aspect of the nasal fossæ in the respiratory zone, on the inferior turbinated body, the inferior meatus, the floor of the meatus, or internal aspect of the alar cartilage. There also exist sometimes simultaneous myxomatous degenerations of the mucous membrane. They are sometimes single, sometimes multiple, are generally small (size of a pea or almond), but may fill the whole nasal cavity. Their surface is mammillated, cauliflower or mulberry shaped, in colour grey, or greyish red, and ordinarily have a long pedicle.

They may be detached spontaneously. They are a little more consistent and more vascular than mucous polypi. They are very vascular at the base, and slight traumatism may lead to smart hæmorrhage.

They have the same symptoms as ordinary polypus, viz., chronic rhinitis and nasal obstruction, with addition of slight frequent epistaxis. They are easily recognised by rhinoscopy. They have to be diagnosed from sarcoma (pain, ulceration, hæmorrhage, rapid growth), mucous polypi (pale, gelatinous), simple hypertrophy (smooth red diffused swelling), papillary hypertrophy (usually on the posterior aspect of the lower turbinated body and large base of implantation), hypertrophy of anterior aspect of the turbinateds, papillary angiomata (deep colour and abundant and spontaneous epistaxis), papillary adenoma (diagnosed by microscopical examination).

As to treatment, Moure recommends removal by the cold snare or galvano-cautery. The latter is the best, and avoids hæmorrhage. He speaks with particular favour of electrolysis, which he maintains gives excellent results in tumours of even large dimensions (naso-pharyngeal, fibromata, etc.).

The base of the growth must be cauterised with chromic acid or the galvano-cautery in order to prevent recurrence. *R. Norris Wolfenden.*

Thudichum (London).—*Naso-Pharyngeal Fibromata*. "Brit. Med. Jour.," Nov. 16, 1889. West London Medico-Chir. Soc., Nov. 1, 1889.

PAPER read, advocating the use of the galvano-cautery in these cases. The operation was done through the nose. Only in a few cases had the meatus to be widened by partial abscission of the lower turbinated bone. A number of cases were related, all of which had recovered.

Hunter Mackenzie.

Bronner, Adolph (Bradford).—*Catarrh of Bursa Pharyngea*. "Brit. Med. Jour.," Nov. 15, 1889. Leeds and West Riding Medico-Chir. Soc., Nov. 1, 1889.

ATTENTION was directed to the important relationship existing between catarrh of the bursa and diseases of the pharynx, nares and middle ear, the instruments to the naso-pharynx were shown, and several cases were recorded in full.

Dr. CHURTON questioned whether these operations were not becoming too fashionable, and referred to a case of considerable chronic enlargement of the faucial tonsils, which disappeared entirely under the local use of glycerine of tannin.

Remarks were made by other speakers, which elicited nothing new.

Hunter Mackenzie.

LARYNX.

Davidson (Liverpool).—*Remarks on Vertigo*. "Liverpool Med. Chir. Jour.," January, 1890.

IN the course of a short and interesting paper upon vertigo, Dr. Davidson calls attention to the vertigo which arises from other causes than actual disease of the semi-circular canals, and which should properly be called "aural vertigo," and not "Menière's disease." The cases described by Menière were mostly, if not all, cases of disease of the semicircular canals themselves. Anything that leads to undue pressure (chronic catarrh of the middle ear, wax in the external meatus pressing on the tympanum, syringing the ear, etc.) may lead to vertigo. Contradictory sensations are conveyed by the two labyrinths to the brain, and consequent giddiness results. As brains differ in sensitiveness, vertigo does not occur in every case. He does not consider the vertigos described as "laryngeal" and "nasal" to be true *peripheral*, but rather to be *cerebral* vertigo. In all such cases it will be found that there has been prolonged and violent sneezing or coughing, which has disturbed the circulation in the brain so as to have *directly* by congestion irritated the centre for equilibrium. Possibly some of the nasal cases may really be cases of labyrinthine vertigo through the Eustachian canal.

R. Norris Wolfenden.

Editor of "British Medical Journal" (London).—*Hernia and Diseases of the Upper Air-Passages*. "Brit. Med. Jour.," Nov. 2, 1889. (An annotation referring to a paper on this subject by Dr. W. Freudenthal at the Annual Meeting of the American Medical Association, in June, 1889).

THE author found that sedentary occupations and certain causes which predisposed men to post-nasal catarrh and other diseases of the upper air-tract decidedly predisposed to hernia. The author attributes the rarity of hernia in women as compared with men to the weaker stress used in pressing down the intra-abdominal contents during the act of hawking or clearing the throat.

Hunter Mackenzie.

Kitchen.—*The Causation of Diseased Conditions in the Larger Respiratory Passages*.—"New York Med. Jour.," Mar. 29, 1890. New York Academy of Medicine.

THE author first referred to hereditary and intra-uterine influences as productive causes of many of the diseases of the upper air-passages. He made a distinction between hereditary and intra-uterine causes. The former might be considered the result of structural and functional peculiarities in both parents, while the latter may be judged to be due to maternal influence alone. There was no fact better established than that structural and functional peculiarities were transmitted from parent to child. Again, the normal peculiarities of structure of the larger respiratory passages tended to produce disease. That the peculiar functions as

well as the structure of these parts did conduce to the diseases so frequent in these organs was quite evident. The angle formed by the vault of the pharynx was well calculated to retain excessive secretion, which then became a source of further trouble. These bunched folds of mucous membrane, the tonsils, were also, by their form, when inflamed, productive of considerable disturbance by pressure. The very complexity of the laryngeal apparatus tended to produce disease. But probably the most generally predisposing cause in these passages was malnutrition, by which was meant insufficient rather than defective nutrition in its broadest sense. The almost innumerable faulty hygienic, sanitary, dietetic, and social conditions and influences which tended to bring about such malnutritive stasis of the body generally also affected those parts under consideration, and rendered their component tissues delicate. Not so frequently did super-nutrition or plethora act as a cause. Such a condition would be sure to bring about catarrhal troubles of the respiratory passages. Faulty excretion usually went hand in hand with plethoric conditions. Many sore throats and bronchial irritations were, without doubt, of rheumatic origin. Abnormality of structure was, in many cases, a very noticeable cause. One pathological condition induced other disordered states, as acute attacks produced chronic conditions. Reflexes of various irritations were no doubt causative agents. Mouth-breathing was frequently mentioned as a cause, but the speaker was inclined to look upon it as primarily the effect of disease rather than the cause. In the light of present knowledge, there was no doubt that germs played an important part in the causation of this class of diseases. The treatment of these troubles referable to the larger respiratory passages was found to be most efficacious where the principal etiological factors were taken into consideration and efforts made to obviate them first.

Dr. JARVIS and Dr. RICE discussed the possible relation which heredity and other influences bore to subsequent development of diseases in the upper air-passages.

R. Norris Wolfenden.

Heymann.—*What should we Call the True Vocal Cords?* Laryngol. Gesellsch. zu Berlin, Feb. 21, 189c.

THE author read a paper upon this subject. Krakauer, B. Fraenkel Schadowaldt, Grabower, and Scheinmann took part in a discussion of the paper, but no uniformity of opinion was arrived at.

Michael.

Meyer, Sandemann, Scholtz, Landgraf, B. Fraenkel, Krakauer, and Schadowaldt.—*Pachydermia Laryngis.* Laryngol. Gesellsch. zu Berlin, Feb. 6, 1889.

MEYER showed eleven cases of pachydermia, and spoke of the symptoms of the disease, recommending iodide of potash internally.

SANDEMAN had observed a lenticular enlargement of the right vocal band, which was ulcerated, in a patient thirty-three years of age. It was cured by curetting.

LANDGRAF had seen a good many cases, and had often observed difficulty of swallowing and dyspnœa. He recommended the internal use of "Weilbacher Schwefelbrunnen."

B. FRAENKEL had only seen temporary benefit from this, but had observed good results from iodide of potash and surgical treatment.

KRAKAUER reported two cases of perichondritis following upon pachydermia.

B. FRAENKEL believed that the difficulty of swallowing and diminished mobility of the vocal cord are pathognomonic of the disease.

SCHOLTZ remarked that pachydermia is the same as what was formerly called catarrhal ulcer.

SCHADEWALDT proposed the name of 'chorditis posterior pachydermica.'
Michael.

Scholtz.—*Laryngeal Carcinoma.* Laryngol. Gesellsch. zu Berlin, Dec. 6, 1889.

A PATIENT, forty years of age, was shown with this condition. A tumour of the size of a walnut was present upon the dorsal aspect of the epiglottis. Microscopical examination proved it to be carcinoma. Extirpation of the tumour with a piece of the thyroid cartilage was performed by Hahn. The patient left the hospital as "cured," but upon the same day the author was enabled to state a recurrence of a tumour of the same size as formerly. The tumour soon increased to the size of an apple. By applications of electrolysis he succeeded in reducing it to the size of a bean, and diminishing the pain of the patient. *Michael.*

Hammer.—*Case of Primary Sarcoma of the Mediastinal Lymphatic Glands perforating the Air Tube.* "Prager Med. Woch.," 1890, No. 7.

THE patient showed, *intra vitam*, the symptoms of stenosis of the left bronchus, and died with increasing dyspnoea. At the autopsy was found a tumour of the size of a fist, situated in the mediastinum, and adhering to the vertebral column. The trachea and œsophagus were dislocated by the tumour, which perforated the trachea and the left bronchus, and obstructed their lumen. The microscopic examination showed that it was a giant-celled sarcoma of the lymphoid glands. *Michael.*

Loomis.—*Angioma of the Larynx.* New York Path. Soc. "Med. Record," April 5, 1890.

THE author presented a specimen showing angioma involving one side of the neck, face, and tongue, and the larynx. The patient was a woman, sixty-two years of age, who first came under observation last March, suffering from chronic rheumatism. At this time there was observed a tumour, as large as an English walnut, projecting from the side of the tongue. Another mass involved the left side of the pharynx, and both tumours were continuous with a third one extending from the inferior maxillary bone to the clavicle. The tumours were of a purple colour, soft, and the tumours of the pharynx and tongue could be enormously increased in size by compressing the tumour in the neck. The woman said that these tumours had existed from birth. She came under observation a second time last November. She was then in a critical condition. The tumours of the tongue and pharynx had increased to the size of a lemon; there was an enormous cervical tumour extending from the level of the orbit to the clavicle. Abdominal ascites and œdema of

the legs were marked. The abdominal lymphatics, especially in the inguinal region, were enlarged to the size of the little finger. The face was cyanotic, and the dyspnœa was so intense that the patient could not lie down. The voice was not changed, but the speech was thick. There was hypertrophy of the heart, and a loud mitral regurgitant murmur was heard. The woman died four weeks after admission to the hospital. Six hours before death she passed about sixteen ounces of blood from the bowel.

At the autopsy the lungs were found œdematous and congested, and there was hypertrophy with dilatation of the heart. There was a moderate amount of chronic diffuse nephritis, and the large intestine showed submucous capillary hemorrhages. In addition to the tumours of the neck, tongue, and pharynx, there were two angiomatous growths of larynx, one the size of a large pea projecting from the ventricle of the larynx on the left side, and the other the size of a cherry at the lowest part of the aryteno-epiglottidean fold.

R. Norris Wolfenden.

Tolmotcheff, M. J. (Rüza). — *Extirpation of Hygroma of the Larynx.* "Meditsinskoié Obozrenié," No. 11, 1889, p. 1093.

THE writer relates the case of a peasant woman, aged forty, with cervical enlargement of six years' standing. On examination there was found a subcutaneous, painless, soft, fluctuating tumour of the size of a hen's egg, firmly attached to the lower portion of the larynx. A puncture drew out some clear yellowish fluid. On extirpation the cyst was proved to start from a ring-shaped papilloma of the size of a shilling-piece, growing out from the external surface of the laryngeal wall. The new growth was stripped off with scissors, and the base touched with the thermo-cautery. The operation was accompanied by profuse hæmorrhage, which was ultimately arrested by means of tampons and ice. The wound healed about the twenty-sixth day.

Valerius Idelson.

Behr, Achilles. — *Casuistic Contribution on Perichondritis Laryngea.* "Inaugural Dissertation," Munchen, 1889.

DESCRIPTION of a specimen of perichondritis with abscess and necrosis of the cricoid cartilage. The patient had suffered during life for four weeks from stridor and dyspnœa. With the laryngoscope a certain diagnosis could not be made. She died from intercurrent lung disease.

Michael.

Heymann. — *Perichondritis of the Larynx.* Laryngol. Gesellsch. zu Berlin, Feb. 7, 1890.

A CASE of syphilitic perichondritis of the capitula Santorini was shown by the author.

Michael.

Schäffer (Bremen). — *Laryngitis Abscedens following Influenza.* "Deutsch Med. Woch.," 1890, No. 10.

A PATIENT, twenty-five years old, contracted influenza. Some days later sudden dyspnœa occurred necessitating tracheotomy. Next day aphonia occurred, and difficulty of swallowing with high fever. The laryngoscope

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showed swelling of the ary-epiglottic folds ; on the right upper vocal band were two little abscesses ; a third was situated on the right arytenoid cartilage. The abscesses opened some days after the swelling disappeared, and the cannula could then be removed. Cure resulted.

Michael.

Neumann.—*Treatment of Laryngeal Tuberculosis.* "König. Gesellsch. der Aerzte in Buda-Pesth," Feb. 22, 1890.

A GENERAL review.

Michael.

Sokolowski.—*A Cured Case of Fracture of the Larynx.* "Centralbl. für Chirurgie," 1890, No. 5.

A GIRL, twenty years old, had the larynx fractured by a machine. The neck was cedematous, and the left half of the thyroid cartilage showed crepitation. The laryngoscope showed both upper bands transformed into large tumours. Tracheotomy was performed, and some pieces of cartilage of the size of a bean were extracted. As the tracheal cannula could not be removed, laryngotomy was performed some weeks later, but as the cartilages were destroyed and the anterior wall of the œsophagus filled out the trachea, nothing more could be done. One year later spontaneous improvement occurred, so that the patient could respire with closed cannula.

Michael.

Frier (Warrington).—*Intubation of the Larynx.* "Brit. Med. Jour.," Nov. 16, 1889. North of Ireland Branch B.M.A., October 31, 1889.

NOTES of six cases of croup were read, with two recoveries. The dyspnoea and noisy croup were relieved in all.

Professor SINCLAIR mentioned two cases of intubation for diphtheria in children two and a half years old. No difficulty occurred in the introduction of the tube, but in one case feeding was carried out with much trouble. The method favourably impressed all concerned, the tube being well tolerated, and the relief quite as marked as after tracheotomy.

Hunter Mackenzie.

Andersen, A. N. (Copenhagen).—*A Case of Difficulty in Removing the Cannula overcome by Intubation.* "Hospitallstidende," February 19, 1890.

A CHILD, aged two-and-a-half, on whom tracheotomy had been performed for croup, was attacked by suffocation on the removal of the cannula. Intubation by O'Dwyer's method was tried. The tracheotomy wound healed, and after ten days the O'Dwyer's tube was removed and respiration through the larynx became free. There seems to have been no laryngoscopic examination performed.

Holger Mygind.

Fleiner.—*On the Causes of Tracheal Stenoses in Tracheotomised Children.* "Virchow's Archiv.," Bd. 16, p. 154.

THE author refers to the *post-mortem* examination of a child who died by suffocation, having worn a cannula two years, and then speaks of the causes preventing the removal of the cannula. They are (1) paralysis of the muscles of the glottis, (2) stenoses of the air tube. Such stenoses may be produced by granulating wounds, acute and chronic inflamma-

tions of the mucous membrane, destruction of the cartilages and false position of the cut tracheal ring. It may be caused by diphtheria itself, or by the operation of tracheotomy. Sometimes granulations cover the wound. If the incision is too large or too little, or not in the median line, the cartilage may be pressed into the trachea, or may be curved. The same events may be produced by a bad cannula which produces decubitus of the posterior wall.

Michael.

Meyer.—*Co-ordinate Spasm of the Glottis.* “Müncb. Med. Woch.,” 1890, No. 4.

THE patient, twelve years old, suddenly lost the voice. The laryngoscope showed that when the patient tried to phonate, the arytenoid cartilages and the upper vocal bands pressed against one another so that no sound could be produced. A cure was effected by exercises and moral treatment.

Michael.

Williamson (Ventnor).—*Laryngismus with Tetany.* “Brit. Med. Jour.,” Nov. 16, 1889. Southern Branch, Isle of Wight District, B.M.A., Oct. 24, 1889.

THE author submitted two cases and “laid great stress upon the necessity of attentive care to the dieting of such patients, and illustrated the necessity by referring to the causative influence of dietetic errors in the cases in question. The value of certain nervine sedatives as adjuncts to treatment was commented on.”

Hunter Mackenzie.

Suckling.—*Hysterical Laryngismus.* “Lancet,” Mar. 29, 1890. Midland Med. Soc.

THE author showed a girl, aged eleven, who, a few days previously, had been seized with peculiar convulsive attacks. In the attacks the eyes were turned upwards, and the respiration became stridulous. The attack ended with sobbing. Dr. Suckling found that an attack could be brought on by sternly ordering the girl to go off into an attack, and that an attack could be cut short by a similar method. The girl was anæmic, and had been overworked at school. The girl's mother stated that any emotional disturbance at once caused an attack. There was no loss of consciousness.

R. Norris Wolfenden.

Krakauer.—*Recurrent Paralysis.* Laryngol. Gesellsch. zu Berlin, Feb. 7, 1890.

A CASE was shown of paralysis of the right recurrent nerve following upon influenza, and the speaker also mentioned a case where paralysis of the recurrent followed upon an operation for goitre.

HEYMANN related a case of paralysis of the velum palati after influenza.

HERZFELD mentioned a case of influenza, followed by temporary loss of hearing and speech.

Michael.

Fraenkel, B.—*Hysterical Aphonia.* Laryngol. Gesellsch. zu Berlin, Feb. 7, 1890.

A CASE of hysterical aphonia, combined with spastic dyspnœa, the so-called “perverse action of the vocal cords,” was shown by the speaker.

Michael.

Fraenkel, B. — *The Case of Hysterical Aphonia.* Laryngol. Gesellsch. zu Berlin, Feb, 21, 1890.

THE case previously shown was again exhibited. Some days after the last demonstration the condition had changed. At every inspiration the vocal cords approached one another; at every expiration they separated from each other. The movements of the cords being quite free, there could, therefore, be no paralysis of abductors. *Michael.*

Dreyfus. — *Laryngoscopic Examinations in Tabes Dorsalis.* Laryngol. Gesellsch. zu Berlin, Feb. 7, 1890.

HE had examined twenty-two patients with tabes dorsalis, but only in two could he find any anomalies. In these there was a commencing paralysis of the posterior crico-arytenoid muscles. *Michael.*

Saundby, R. (Birmingham).—*A Case of Bilateral Paralysis of the Abductors of the Vocal Cords.* "Birmingham Med. Rev.," 1890.

A WOMAN, fifty-three years of age, was admitted into the hospital on February 19, 1889. For a week she had suffered slight irritation about the throat, and a little difficulty in swallowing, but had neither caught cold nor had any injury to the larynx. The patient was markedly cyanotic, and suffering from urgent inspiratory dyspnoea. The vocal cords were seen to be close together, and were almost immovable, separating but slightly, and that only during the most violent inspiratory efforts. There was no evidence of bronchocele, or cervical, or thoracic tumour, or of any pressure upon the vagi or recurrent laryngeal nerves or of bulbar disease. The knee jerks and pupil reflexes were normal. Beyond weak breath and heart sounds nothing was discovered in the thorax. Tracheotomy was performed as soon as possible. On December 10 there was no improvement in the condition of the cords, and the patient was still wearing the tube. (While in the hospital laryngoscopic examination was made, and of one it was recorded, "ary-epiglottidean folds red and œdematous. Vocal cords, which are relaxed and swollen, move just as feebly as before, and within the same limits"; and twelve days afterwards it was mentioned that though "the cords separate more than before, they still look red and swollen." It was also mentioned that the patient could adduct the cords on phonation quite well, except at the posterior ends. Unfortunately no mention is made of the appearance of the arytenoid cartilage and joint. May the case be one in which movement was impaired by infiltration?)

It is suggested that the case may be of myopathic nature, such as was described by Mackenzie. *R. Norris Wolfenden.*

Leuch.—*Hysterical Mutism.* "Münch. Med. Woch.," 1890, No. 12.

(1.) A HYSTERICAL girl, nineteen years old, suddenly lost voice and speech from fright and an attack of (as she called it) "apoplexy." Such apoplexies were sometimes repeated. She then had hysterical attacks, and could speak at all. Cure was effected by hypnotism.

(2.) A girl, twelve years old, had chorea lasting eight days, and could not speak any word, or show the tongue. Spontaneous cure.

(3.) A lady, fifty-four years old, for three years had a hysterical clonic spasm of the masseters, with other hysterical symptoms. She became aphonic, and then completely mute. Some days later she had a dreadful dream which caused her to cry out during sleep. From this moment the voice returned.

Michael.

Strassmann.—*Case of Hysterical Aphasia in a Boy combined with Paralysis of the Facialis, Trismus, and Spasm.* "Deutsch Med. Woch.," 1890, No. 10.

A BOY, eight years old, who had always been healthy, suddenly became ill without any apparent cause. He could not speak, had dyspnoëic respiration, could not open his mouth, and the facial nerve was paralysed. The condition having lasted ten hours, disappeared as suddenly as it came.

Michael.

Semon and Horsley.—*On the Central Motor Innervation of the Larynx.* "Internat. Centralbl. für Laryngologie," Feb., 1890.

GERMAN translation of the paper in the British Medical Journal, December 12, 1889; cf. the report in this Journal.

Michael.

Semon, Felix, and Horsley, Victor (London).—*Last Word in the Controversy upon the Central Motor Innervation of the Larynx.* "Berl. Klin. Woch.," No. 7, 1890.

POLEMICAL article.

Michael.

Porter (Sheffield).—*Thoracic Aneurism.* "Brit. Med. Jour.," Nov. 2, 1889. Sheffield Medico-Chir. Soc., Oct. 24, 1889.

A MAN, aged forty-four, was shown, believed to be suffering from this disease. In 1885 he lost his voice, and the left vocal cord was found paralysed. There were no other signs of a tumour or pressure symptoms. Hæmoptysis, which recurred from time to time, always yielded to five-grain doses of succinate of potash.

Hunter Mackenzie.

Blackman, J. C.—*Laryngeal Stenosis from fixed Adduction of the Vocal Cords, following Cancer of the Oesophagus.* "Brit. Med. Jour.," April 12, 1890.

M. T., aged fifty-one, labourer, came under notice in September last. He stated that he had been ill four months (?), but his appearance betokened much suffering. His breathing was noisy, and during the consultation he had several paroxysms of dyspnoëa after coughing. His voice was very rough. Externally, the larynx was observed to make scarcely any respiratory excursion, and appeared enlarged on the left side. A swollen gland was felt near the posterior border of the left sterno-mastoid, and the thyroid was palpably enlarged. No dulness was found on percussing the chest, but on auscultation tubular breathing was slightly marked on the right side. There was much expectoration of frothy mucus, and great pain was experienced, especially on swallowing, which latter act was extremely difficult.

Laryngoscopic examination: Swelling of both ventricular bands, especially the left, which somewhat overlapped the vocal cord of that side. The vocal cords were fixed in the median position, and only about an eighth of an inch apart. The mucous membrane over the summits of the arytenoid cartilages was much swollen. The dyspnoëa, though marked,

was never sufficiently urgent to call for tracheotomy, the patient really dying from exhaustion. The necropsy revealed cancer of the upper portion of the œsophagus involving both recurrent nerves. The crico-arytenoid joints were fixed by the surrounding inflammatory thickening.

The author assumes that in this case the vocal cords primarily occupied the cadaveric position in consequence of bilateral paralysis of both the adductors and the abductors, but these latter undergoing tonic contraction, of a similar character to that noticed after severe facial palsy, caused the cords to take up the position in which he found them. The contraction, though affecting both sets of muscles, resulted, as in the case of spasm, in the adductors overpowering the abductors, possibly from mechanical advantage. The fixation of the vocal cords in their baneful position is accounted for by the condition of the crico-arytenoid joints found *post-mortem*.

R. Norris Wolfenden.

Knight, C. H.—*Foreign Bodies in the Air Passages.* "The Medical Analectic," March, 1890.

IN the course of an abstract of the recent literature of the subject, the author mentions the following cases. Several others are referred to (Massei, Moure, Hovell, etc.) which have previously been published in this Journal.

In the "Memphis Med. Monthly," February, 1890, W. A. Mewborn reports a case of cockle-burr in the right bronchial tube; expectorated after twenty-two months; the patient dying two months later in consequence of the damage to the lung. In the same journal H. W. Tate reports five cases. In two, spontaneous expulsion occurred; in two, life was saved by tracheotomy; and in one death ensued in spite of a tracheotomy, which was apparently done after respiration had entirely ceased.

O. B. Gross reports a fatal case in the "Medical Bulletin," the foreign body being a marrow-fat pea, which was found in the left bronchus, one and a half inches from the tracheal bifurcation.

In the "Glasgow Med. Journal," December, 1889, William Mac Ewen reports a case in which the shell of a hazel-nut was inspired, and became embedded in the posterior wall of the trachea. It was exposed and removed by means of a tracheotomy during an attack of extreme dyspnœa.

In the "Peoria Medical Monthly," November, 1889, F. E. Waxham cites an extraordinary case, in the course of an article on foreign bodies in the larynx. The patient was a child fifteen months old. Tracheotomy was done. The foreign body was a vertebra of the fish, with its two projecting spines. As the patient was still unable to breathe comfortably with the tracheotomy wound closed, he concluded to introduce an intubation tube, and to close the wound. The assistants held the wound open to facilitate the respiration while the tube was introduced. As this was done, a second vertebra was forced down through the larynx, and expelled through the tracheal opening.

After carefully searching the trachea, and making sure that there were no more vertebrae present, a drainage tube was inserted, the wound closed and dressed antiseptically, leaving the intubation tube *in situ*. The patient rallied well from the operation, nursed without difficulty, and

finally made a good recovery. The same writer reports in the "North American Practitioner," February, 1890, a case in which he successfully removed a shawl-pin which had been in the right bronchus for three months.

In the "Cincinnati Lancet-Clinic," January 4, 1890, J. A. Thompson gives the history of a case in which a piece of oyster-shell was expelled from the larynx by coughing, after having been retained three or four months.

In the "North Carolina Medical Journal," December, 1889, K. G. Battle describes a case in which he removed a "sand-spur," the prickly involucre of a species of grass found along the Atlantic sea-coast, from the larynx of a boy, who had inhaled the object four days before. Several attempts at removal had failed, but it was finally extracted with the Schroetter-Türk forceps under cocaine.

A case of tooth-plate in the laryngo-pharynx for sixteen days, the subject of a paper read by C. H. Knight at a meeting of the laryngological section of the New York Academy of Medicine, and reported in the "New York Medical Journal," November 23, 1889, is still under observation. It was supposed that the damage to the vocal bands was irreparable, and that aphonia would be permanent. It has been interesting to see, however, that the gap in the cords has become gradually effaced. On abduction it is quite apparent, but on adduction the cords meet almost perfectly, and the patient speaks with fair volume in a low-pitched, rather hoarse voice, which would be still better but for the presence at the anterior commissure of an excrescence or a neoplasm, the precise character of which has not yet been determined.

R. Norris Wolfenden.

Bondeson, J. (Copenhagen).—*A Case of Foreign Body in the Right Bronchus.* Med. Soc. of Copenhagen Meeting, February 5, 1890.

A BOY, aged three, suddenly had difficulty in breathing whilst playing with some seeds of *ceratonia siliqua*. Twelve hours later (the child in the meantime having had attacks of dyspnoea with free intervals) deep tracheotomy was performed, without revealing any foreign body. Twelve hours later, as the dyspnoea became continuous, accompanied by cyanosis and collapse, and as the whole right lung was found to be out of function, a foreign body in the right lung was diagnosed. Pharyngeal forceps were introduced through the tracheotomy wound into the depth of the right bronchus, and a seed, which was much enlarged by swelling, was removed. Complete recovery in a fortnight.

Holger Mygind.

O'Neill, Henry (Belfast).—*Plumstone in Trachea.* "Brit. Med. Jour.," Nov. 16, 1889. North of Ireland Branch, B.M.A., Oct. 31, 1889.

THE patient was a schoolboy, aged six, who accidentally permitted a plumstone to pass down the trachea. He had a few severe attacks of coughing, but otherwise seemed quite well. Tracheotomy was performed. The patient was then turned heels upwards and patted sharply between the shoulders, when, during a fit of coughing, the stone dropped out of the wound, which had been kept open by a dilator. Recovery.

Hunter Mackenzie.

Kocher.—*Extraction of a Foreign Body from the Lung.* "Wien. Klin. Woch.," Nos. 7, 8, 9, 1890.

A CHILD, four years old, had inspired a little tube of metal. The event was followed by attacks of suffocation, but the patient became better shortly after. A few days later, the patient became feverish, and the position of the foreign body could be diagnosed by auscultation as situated in the right bronchus. Tracheotomy was performed. An endeavour was then made to extract the foreign body (which could be felt by a probe) with forceps and other instruments, but it was found to be impossible to move it. Some days later an endeavour was made to remove it with the spoon of Leroy d'Etiolles. With this instrument the body could be passed, then the movable spoon could be flexed, and extraction could be performed. The patient at first became better, but died some weeks after. The *post-mortem* examination revealed pneumonia and cerebral abscess. It is probable that the lung, and, indirectly, the brain, was infected by the foreign body. *Michael.*

THYROID GLAND.

Wright, G. A. (Manchester).—*Notes on Thyroid Asthma, and its Surgical Treatment.* "Manchester Med. Chronicle," March, 1890.

DURING the last seven years the author has had charge of five cases of what he calls "thyroid asthma," *i.e.*, "cases in which urgent dyspnoea has been caused by lateral pressure upon the trachea by an enlarged thyroid gland."

In three cases the glandular enlargement was "simple hypertrophy," in one case the patient was cretinoid, in one the glandular enlargement was coincident with all the symptoms of Graves' disease. In all cases the dyspnoea was due to direct pressure upon the sides of the trachea by the enlarged lateral lobes drawn tightly together by the isthmus, and the trachea was typically "scabbard-shaped."

Four cases were young adults; the fifth was a child of two or three years of age. In two of the cases tracheotomy only was performed, in two the isthmus only was divided, and in one case the trachea was opened and the isthmus divided twenty-four hours later. Four of the patients died, one (the child) from broncho-pneumonia, one from cedema of the lungs, the obstruction being only partially relieved, two from slipping of the tracheotomy tube in consequence of the depth of the trachea from the surface. The patient who recovered was the young man in whom division of the isthmus was performed in the interval between attacks of dyspnoea. Certain points seem to be fairly well established in regard to thyroid asthma, and some of them are illustrated by these cases. 1. The onset of the symptoms is often sudden, urgent, and spasmodic. 2. The symptoms are due to direct lateral pressure

upon the trachea. 3. The mechanical pressure is only remediable by mechanical means. 4. Tracheotomy is attended with considerable difficulty at the time, and much subsequent danger from (a) cellulitis, (b) slipping of the tubes, (c) lung complications. It is moreover not curative. 5. Division of the thyroid isthmus is a comparatively simple operation, is followed in a large proportion of cases by shrinking of the gland, at once partially relieves dyspnœa and avoids the evils which follow complete removal of the gland. It is not usually accompanied by much hæmorrhage. 6. Division of the thyroid isthmus combined with tracheotomy has been found to give a very high rate of mortality. 7. If tracheotomy is performed a specially long tube is required.

Mr. Wright thinks the right course to follow, to relieve symptoms, and diminish mortality, is to divide the isthmus at the first sign of increasing dyspnœa, and although the onset of thyroid asthma is often sudden, there is usually time to operate before the symptoms becomes very urgent, if there is no delay. If the case is allowed to go on too long, there may not be time for the trachea to recover its shape sufficiently to allow respiration to go on. Specially long and large tubes should be employed for these cases, the depth of the trachea from the surface only allowing a very short length of any ordinary tracheotomy tube to lie in the trachea, and as swelling takes place after the operation, this short length is still further lessened. The occurrence of fatal pressure upon the trachea in Graves' disease must be exceedingly rare, and the author has not found a reference to such a case. Anæsthesia requires much care in these cases, and though in some it may diminish spasm, and lessen dyspnœa, it is more likely to complete asphyxia during the early stages of administration.

The author suggests the term "thyroid asthma" for these cases, as being a corresponding term to "thymic asthma," and as a convenient term to express shortly, dyspnœa due to diminution of the lumen of the trachea from pressure by the thyroid gland. (The term is not a happy one, the dyspnœa being almost entirely mechanical, and produced mechanically, and not having anything in common with true asthma.)

R. Norris Wolfenden.

Koch.—*Two Extirpations of Asphyxiative Goitres.* "Münch. Med. Woch.," 1890, No. 34.

(1.) A GIRL, fifteen years old, had had a large struma, and suddenly got such violent dyspnœic attacks that the author was called upon to perform tracheotomy. He judged that extirpation of the struma would be necessary, but as he remarked that by elevation of the right lobe of the thyroid gland the dyspnœa was improved, he deferred doing so to the next morning. Next morning extirpation of the right lobe was completed. Cure resulted. It is to be remarked that the hypertrophy of the left lobe diminished after the operation.

(2.) A lady, forty-five years old, had increasing dyspnœa for one year. Commencing in the fossa in the middle line, was a goitre of the size of a walnut. The lateral lobe of the thyroid gland was also enlarged. Extirpation of the struma substernalis was performed. The wound remained in good state, but the patient died from pneumonia.

Michael.

Dennétieres.—*Exophthalmic Goitre and Œdema of the Glottis, with Gumma of the Cricoid Cartilage.* "Jour. des Sciences Méd. de Lille," Dec. 27, 1889.

THE patient was a woman, who, at the age of twenty-eight, began to have palpitation and prominence of the eyes. When thirty-four years of age she was seized with pain in the throat and difficult respiration. She was admitted to the hospital on the 5th of November, saying that for ten months her throat had troubled her, having a hoarseness and incessant cough, with dysphagia. She had pronounced exophthalmos and hypertrophy of the thyroid gland, palpitations, and tachycardia; pulse, 180; a non-hypertrophied heart; voice and cough were harsh; respiration, 38; slight substernal retraction; greatly diminished vesicular murmur; normal sonorousness. No cyanosis nor lowering of temperature, scanty and albuminous urine. An ordinary examination of the throat revealed nothing, and it was thought to be a case of suffocative goitre. The throat was poulticed, steam inhalations ordered, and hypodermics of ether given. Tracheotomy was not performed, and the case remained in about the same state for two days, but terminated fatally at night. An autopsy revealed an enlargement of the thyroid body of the size of a turkey's egg. The antero-posterior diameter of the larynx was shortened and the transverse diameter lengthened by a spreading of the thyroid cartilage. The aryteno-epiglottic folds were the seat of an œdema, which, with the depression of the larynx, caused a stenosis of the larynx. Behind the cricoid cartilage, in the œsophagus, was an ulcer, 1 cm. in diameter, with ragged edges and indurated base, which did not communicate with the larynx. The ulceration had uncovered the internal angles of the arytenoid cartilages, and had destroyed the posterior insertion of the crico-arytenoid muscles. *R. Norris Wolfenden.*

Ord, W. M. (London).—*Some Obscure Points in connection with Glycosuria.* "Brit. Med. Jour.," Nov. 2, 1889. Med. Soc. of London, Oct. 28, 1889.

IN the discussion which followed the reading of this paper, Dr. Pavy mentioned that he had seen diabetes associated with exophthalmic goitre—an association which was new to Dr. Ord.

Hunter Mackenzie.

Scheinmann.—*A Case of Carcinoma of the Thyroid Gland.* "Deutsch. Med. Woch.," No. 13, 1890.

A PATIENT, thirty-seven years of age, was dyspnoic, had great pain in the chest and inspiratory stridor. A hard tumour and numerous swollen glands were seen on the right side of the neck. Laryngoscopically, paralysis of the right recurrent, with paresis of the left recurrent, and compression of the trachea were demonstrated. Tracheotomy was performed. Death resulted. Microscopical examination showed the tumour to be a canceroid of the thyroid gland. *Michael.*

REVIEWS.

The Transactions of the Inter-Colonial Medical Congress of Australasia.

(Second Session held in Melbourne, Victoria, Jan., 1889.) Melbourne, Sitwell & Co. London, H. K. Lewis.

WE have received this portly volume of 1030 pages from Mr. H. K. Lewis. From the amount and quality of the work recorded here, all must admit that the Australasian Congress compares very favourably with any of the International Medical Congresses. The standard attained is very high indeed, and speaks eloquently of the status of the medical profession in our Australasian Colonies. The various sections are well represented, and the presidential addresses to each section are uniformly of an interesting character. The study of throat and nose work, as a special subject, would appear to be yet in a more or less embryonic stage as regards Australia. The transactions contain but few contributions to these subjects, but they are of an interesting character; and one of the most interesting is the paper by Mr. A. Honman upon the "Correlation of 'follicular tonsillitis in children with other zymotic diseases.'" A vast amount of useful information may be obtained from medical men in large general practice upon this question, which has such important bearings upon sanitation and the etiology and pathology of diphtheria and scarlatina, and closely allied conditions. We should like to see more of such papers contributed by general practitioners to all medical meetings. The various papers in this volume, which will particularly interest readers of this journal, have been abstracted in the body of the journal. It is impossible in this place to attempt a complete review of this portly volume. No one who possesses it can peruse it without a feeling of admiration for the work done by our colleagues in Australia. It is a work which should be on the shelves of every medical man who prides himself upon his library.

Coca, and its Therapeutic Application. By Angelo Mariani (with illustrations).

New York, J. W. Jaros, 1890, pp. 78.

THIS little book is of course written with a purpose, namely, the advertisement of the coca preparations of Mariani. A chapter is devoted to the botanical characters of coca, the various plants being described and figured, and the cultivation and gathering of coca are discussed. The second chapter deals with the history of coca, in which the love of the South American Indian for his "poporo" is compared to that of the European for his well coloured pipe. With the Indian, however, the "poporo" is perhaps the most sacred treasure in his possession. The gift of the "chuspa," or coca pouch, and the "poporo," indicates the coming of age of the recipient. He is then allowed to carry coca leaves in the "chuspa," which he chews and rolls into a quid, adding a little lime which he takes from the "poporo" by means of a small stick. While masticating the leaf, he slowly turns the stick round the upper edge of the "poporo," round which particles of "llipta" (the vegetable ash and ground shell or lime) adhere. In course of time this "poporo" gets crusted with

a thick ring of "lipta," which becomes thus in some measure an indication of the age and dignity of the owner. These "poporos" are so sacred that only one is believed to exist in Europe, and is in the possession of M. Mariani. Short chapters follow upon the physiology of coca, cocaine, and the therapeutic applications of coca. Apart from specifically advertising the special preparations of M. Mariani (who, however, must always have the great credit of being the first pharmacist to have introduced into Europe and rendered popular the coca preparations), the little book is interesting.

NEW PREPARATIONS.

Vin Tonique Mariani.

A SAMPLE of the above has been sent to us for notice. We presume however, that there are few people who have not heard of "Vin Mariani." It has been long enough before the profession to have made a place for itself. All of us have experienced the benefit of coca wine when prescribed for conditions in which signs of bodily and nervous depression predominate, and not a few of us have personally experienced the exhilarating effects of coca upon a system fagged out by over work. The preparation before us is an improvement upon the Vin Mariani as we used to know it, in that it is not so sweet. Manufacturers of pharmaceutical preparations on the Continent too often forget that the English palate dislikes sugary, syrupy sweet productions, and seeks in wines for "dryness," and in other preparations for the absence of sugar. We think that the dose prescribed upon the bottle of "one claret glassful before or after the principal meals" is too much. It is easy to produce a feeling of exhilaration akin to mild intoxication even with "Vin Mariani," and we have found an ordinary wine glassful or less quite sufficient to obtain the desired tonic effect. With this reservation we can speak with the greatest confidence of the beneficial and invigorating effects of "Vin Tonique Mariani," and can cordially recommend it. Besides the "Vin," an "Elixir Mariani," "Pâte Mariani" (lozenges), "Pastilles Mariani" (coca and cocaine), "Thé Mariani" (concentrated extract of coca, which may be used for gargles and sprays, or as a beverage to replace tea and coffee), are manufactured by the same firm, and all will be found very useful in certain conditions.

Vinolia Soap (Blondeau & Cie.).

We have received samples of this preparation, which is described as a "superfatted soap devoid of free alkalis." It is said to be manufactured by an original and newly discovered process differing from all other soaps, in that it contains an admixture of unsaponified cream, instead of excess of alkali, and is free from all extraneous matters. It is moulded by compression only, and not polished by subjecting it to the corrosive action of powerful alkalis. It is free from dextrine, starch, gelatine, pumice-stone, baryta, resin, or other foreign matter.

We find that it is an excellent and elegant soap, lathering nicely, producing a soft skin and delicately perfumed, altogether a toilet requisite hard to surpass.

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Bismuth Sub-nit., 5 and 10 gr.
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Borax, 5 grs.
Caffein Citrate, 1 gr.
Calcium Sulphide, 1 10 gr.
Calomel, 1 10 and 1 gr.
Capsicum Tinct., 1 min.
Cascara Sagrada Ext., 2 gr.
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Euxonymin, 1 gr.
Nux Vomica Ext. 1 16 gr.
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Cretae Aromat. cum Opio Pulv., 5 gr.
Digitalis Tinct., 1 min.
Digitalin, 1 100 gr.
Dover Powder, 1/4 and 5 gr.
Euxonymin Resin, 1 8 gr.
Hydrarg. cum Cretâ (Grey Powder).
1 3 gr.

Hydrarg. Iod. Rub., 1 50 gr.
Hydrarg. Iod. Vir., 1 5 gr.
Hydrarg. Perchlor., 1 100 gr. 1 gr.
Hydrarg. Subchlor. (Calomel): 10 and
Hyoscyamus Tinct., 1 min.
Ipecac. and Opium (Dover Powd.),
1 and 5 gr.
Ipecac. Powder, 1 10 and 5 gr.
Iron and Quinine Cit., 5 gr.
Lavative Vegetable.
Lithia Carbonate, 2 gr.
Manganese Dioxide, 2 gr.
Morphine Sulph., 1 20 and 1 8 gr
Nux-Glycerine.
Nux Vomica Tinct., 1 min.
Opium Tinct. (Laudanum), 2 min
Papain, 2 gr.
Pepsin, Pure (Fairchild).
Pepsin Saccharated, 5 gr.
Peptonic.
Philocarpin Mur., 1 20 gr.
Phenacetin, 5 gr.
Podophyllin Resin, 1/4 gr.
Potash Bicarb., 5 gr.
Potassium Bromide, 5 and 10 gr.
Potash Chlorate, 5 gr.
Potash Chlorate with Borax, 5 gr.
Potash Nit. (Sal Prunellâ), 5 gr.
Potash Permanganate, 1 and 2 gr.
Potassium Iodide, 5 gr.
Quinine, 1 10, 1/2, 1, 2, 3 and 5 gr.
{ Quinine Sulphate, 1 gr.
{ Iron Hypophosphite, 2 gr.
{ Acid Arsenious.
{ Strychnine Sulphate, 1 and 1 50 gr.
{ Saccharin, 1 100 gr.
Rhubarb, 3 gr.

Rhubarb Comp. (Pil.), 1 gr.
Rhubarb Comp. Pulv. (Gregory Pow-
der), 5 gr.
Rhubarb and Soda, 5 gr.
Saccharin, 1/2 gr.
Salicin, 5 grs.
Sulol, 5 gr.
Santonin, 1/2 gr.
Soda Bicarbonate, 5 gr.
Soda-Mint (Soda, Ammon., Carb.
and Mint).
Soda Salicylate, 3 and 5 gr.
Strophanthus Tinct. 2 min.
Sulphonal, 5 gr.
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NEURASTHENIA AND NASAL DISEASE.

At the Annual Meeting of the American Laryngological Association in June, 1889, Dr. W. H. Daly presented a paper upon this subject, which elicited some discussion. The author of the paper in question felt warranted from his clinical experience in regarding certain forms of nervousness, in men especially, which are characterised by insomnia, indigestion, mental irritability, etc., which were formerly thought by Murchison and others to be nothing more nor less than manifestations of lithæmia, as really produced by intra-nasal disorders. The two cases which Dr. Daly instanced as typical of twenty-five such cases which had fallen under his observation, would scarcely support such conclusions. The obvious inference from such a supposed connection would be that if local treatment were efficiently carried out we might relegate general therapeutics to quite a secondary place.

Dr. Daly, who is well known as an accomplished rhinologist, is equally well known to be an advanced thinker upon such matters. It would be a fortunate thing for the neurasthenic if such a simple cause could be assigned for the *ensemble* of his symptoms. But in the nose we have especially to guard against the *post hoc propter hoc* line of argument, and it appears to us that Dr. Daly by no means proved the point he aimed at. A number of the "Medical Record," just to hand, contains a paper by Dr. Chappel upon "Neurasthenia and Neuralgia from Traumatism of the Nasal Passages," in which precisely the opposite conclusion is reached. Dr. Chappel, in fact, states that "Operations in the nasal passages offer a most favourable opportunity for the development of traumatic neuroses," and in support of his thesis he relates six cases where nervous disturbances followed upon operations within the nasal cavities. In some these were severe enough to quite unfit the patients from following their ordinary occupations, in one of them, indeed, a cataleptic condition followed, with peripheral neuritis. While these patients "would be considered as belonging to the neurotic type, none had

"previously shown any of the symptoms they now developed, nor had they any reason for posing as invalids or objects of sympathy." Dr. Chappel concludes that "operations in the nasal passages should not be undertaken lightly, and with the impression that if they don't do any good they will not be harmful; also great experience and judgment may be required to determine the cases suitable for operation and likely to be benefited thereby If the patient is very neurotic or gives a history of having suffered from what is called nervous prostration, although the physical condition might be excellent, I would discourage operative measures unless imperatively demanded."

Whichever side we take upon the question, we are confronted by the danger of floundering out of the Scylla of extravagant surgery into the Charybdis of "doing—nothingness." However great the experience and judgment of the observer, it is by no means easy to say which are the cases in which intra-nasal surgery may be expected to give benefit, and where the result may be anticipated to be failure or positive harm. We lately took the occasion to review the present position of thought as to the connection of the nose with asthma, and to dwell upon the necessity for the exercise of very careful judgment before concluding to advise any intra-nasal surgical treatment in such cases. It is not necessary to conclude that the neurasthenic owes his nervous symptoms to the presence of intra-nasal "spurs," "deflections," "hypertrophies," and the like, or that they have necessarily anything at all to do with his condition. It seems to us that to draw the attention of such a patient off general treatment, and to concentrate it upon one organ, even if that be only the nose, is to put him in a worse condition than when we started. It is, moreover, certain that comparatively simple intra-nasal operations produce in neurasthenic patients a comparatively high degree of "shock," traumatic fever, etc. The rhinologist may go as far astray in his treatment of neurasthenia by his exclusiveness as the obstetrician has sometimes done. It would be a pity if rhinology were to incur the reproach of a "narrow specialism," and to fall under a ban similar in this respect to a narrow-minded gynæcology.

We lately read a most instructive lesson given by Dr. More Madden, upon the "Utility of Constitutional Treatment of Chronic Diseases Peculiar to Women." He mentioned the case of a lady who, for general symptoms, with certain signs pointing to the pelvic organs as the seat of the trouble, had been treated for retroversion by others by mechanical expedients only, and for whom, he remarks, "Every pessary—and the number was almost countless—that I tried, however well it might fit, was practically useless I learned at *last* that she inherited gout, and, on examining, found her urine laden with uric acid." Only after this rational view of the case did appropriate treatment effect the desired cure. Just as Dr. William Goodell, protesting vigorously against the too prevalent method of treatment for neurasthenic patients in vogue amongst gynæcologists, reminds his readers "that women have some organs outside of the pelvis," shall we perhaps in the near future be compelled to remind enthusiastic rhinologists that a neurasthenic patient is not a mere appendix to his nose.

The causes of neurasthenia, obscure as they are, are not to be sought in some slightly abnormal condition of an organ such as the nose, and to imagine that local treatment of this, or indeed of any individual organ, is going to reward us with successful therapeutic results, is to subject ourselves to such failures as Dr. More Madden very honestly has recorded. Many women live only for the gynæcologist, and though we would not for a moment impute such conduct to members of a noble profession, there is no doubt that gynæcology in some unscrupulous hands has not been free from chicanery in a class of patients in whom the loss of nervous control, which is the essence of neurasthenia, has rendered them ready agents to such practices. It would be a thousand pities were rhinology to incur the same reproach.

To remove a vital cause of irritation is right and proper, but to assert that the slight pathological abnormalities met with in many nasal organs, even when they are accompanied with nasal catarrhs, is in real proportion of neurasthenic individuals a potent cause of their troubles, is, we think, to take up an untenable position. Those who, in such cases, look only to intra-nasal surgical treatment, and fail to appreciate the necessity of getting behind these apparent symptoms, and treating the general nervous system as of primary importance, will be doomed in their specialistic narrowness to failure. To say that such treatment, even if it does no good, will do no harm, is not correct. Very great aggravation of the patient's sufferings may follow injudicious and meddlesome interference. It is in neurasthenic patients, of all others, that we should exercise the very greatest discrimination in recommending or carrying out surgical treatment.

A STUDY OF THE DIAGNOSIS AND TREATMENT OF MALIGNANT TUMOURS OF THE NASAL FOSSÆ.

By Dr. A. F. PLICQUE, Ancien Interne des Hôpitaux.

(Continued from page 200.)

III.

(A.) The diagnosis of extremely diffused and extensive tumours of the nasal fossæ scarcely offers any difficulty as to the determination of malignancy, which is only too evident. But the diagnosis of contra-indications to operations is singularly delicate. The question is, whether one may hope, even with considerable sacrifices, to obtain a complete ablation, or whether it is better to adopt palliative treatment only.

Contra-indications founded upon the general condition cannot be misconceived by attention and complete examination. Visceral metastases are frequently met at this period of the affection, particularly in the lungs and liver. Even in the absence of visceral lesions, a too advanced cachexia is an evident motive for rejecting severe operations.

Contra-indications, on account of local condition, are more difficult to appreciate. The nasal fossæ, from their multiple connections, lend themselves particularly to irradiation of tumours. It is not easy to determine either the extent or the direction of these irradiations. Those which occur across the ethmoid bone—the most important as being absolutely contra-indicative of operation—may especially evolve with great slowness, without causing any cerebral symptoms, and may only be determined, as has happened in many cases, during the conduct of the operation. Sometimes they even already exist in tumours, the appearance of which would seem to indicate that they are but little advanced. Pean,¹⁸ for example, has recorded a case where a tumour composed of very numerous polypi, of size varying from that of a millet-seed to that of the thumb, occupied all the circumference of the nasal fossæ. An attempt at ablation remained incomplete, and caused a meningitis, which carried off the patient in a couple of days. At the autopsy it was found that these polypi had invaded the maxillary, ethmoidal, and sphenoidal sinuses, and penetrated into the cranial cavity. It is therefore essential to carefully consider even the least symptom which seems to indicate any irradiation towards the base of the cranium, and especially any ocular symptoms.

Any didactic study of tumours of the nasal fossæ should also discuss at length the diagnosis between tumours of the nasal fossæ which have invaded the neighbouring parts, and tumours of the neighbouring regions, especially the superior maxillæ, which have invaded the nasal fossæ. In practice, however, the situation of the principal extent of the tumours leaves no ground for hesitation, and the only question is whether the total mass of the tumour and its prolongations can be removed completely. Primary origin of the tumour gives in this respect only chance information. Sarcomas arising from the periosteum of the ethmoid and basilar apophysis may invade the nose and adjacent cavities without penetrating into the cranium; epithelioma in appearance, much less extensive, may have perforated the bones.

The method of surgical intervention is ruled by the invasion of the tumour either superficially involving the mucous membrane and subjacent layers, or deeply into the bony tissue. In the first case ablation may still be performed after having even many preliminary operations. In the second case resections of bone are necessary, which generally involve the superior maxilla, and are performed according to required methods.

(B.) 1. The preliminary operations proposed in order to admit free access to the nasal cavities are numerous. Most of them have been proposed at various times for the removal of naso-pharyngeal polypi. They comprise all possible methods of turning aside the nose: to the side—Chassaignac, Langenbech, Beckel; upwards—Lawrence¹⁹; downwards—Ollier²⁰; and its division into two complete halves with corresponding division of the upper lip. We can describe in detail only the methods of Chassaignac and Ollier, the former of which is perhaps more favourable for unilateral tumours, the latter for bilateral growths.

¹⁸ Nélaton, "Pathologie Externe," tom. iii., p. 741.

¹⁹ "Thèse. de Paris," 1874.

²⁰ "Soc. de Chirurgie," May 15, 1889.

The following is the description of this method, according to the thesis of Goguel²¹ :—

(A.) In Chassaignac's operation the operator is placed in front of the patient. A transverse incision is made from one orbit to the other. From this a vertical incision is made on the left side and slightly oblique, and, when at the level of the inferior part of the nasal orifice, the direction is changed and a transverse incision made extending from left to right, so as to include the whole portion of the lower part of the nose. The nose is thus included in a rectangular incision, and is attached only to the opposite side of the face. The subcutaneous and cartilaginous tissues, which form the external envelope and part of the nasal skeleton, are then separated by large and rapid incisions in such a manner as to permit the nasal flap to be turned over in one piece on to the right cheek. This step completed, the anterior nasal orifice must be enlarged by osseous sections in the following manner :—An opening is made with the perforating trephine of Langier, which leads from one orbit into that of the opposite side. The chain scissors, introduced through this opening, permit to be resected at once, and from behind forwards, the portions of the bases of the nasal bones attached to the frontal bone, and the upper portion of the perpendicular apophyses of the superior maxillæ. In order to raise the kind of pent-house which the external osseous framework of the nose resembles, it is necessary to practise an oblique section starting from each extremity of the inter-orbital canal, and to make it on each side join the edge of the orifice of the nasal fossæ. To accomplish this, chain scissors are conducted from each extremity of the inter-orbital canal (occupied with the first chain scissors) towards the nasal cavity, across which they are introduced from without. Their object is to separate the lateral part of the nasal vault. These two latter scissors may be replaced by Liston's chisel, but only in young subjects. In this manner a spacious opening is obtained, especially when it is completed by section of some of the lamellæ which, under the name of turbinateds, may yet exist in the nasal fossæ.

(B.) Ollier's operation comprises two steps:—1. Incision of the skin and vertical section of the nasal skeleton; 2. Moving the septum. An incision is made commencing from the level of the posterior border of the right ala, continued upwards towards the highest part of the naso-frontal depression, then downwards to the left side to the level of the posterior border of the left ala. The incision should be made at once down to the bone. Right-angled scissors are taken and the external wound rapidly cut. The section is arrested as soon as the upper apophyses are passed. The nose is disarticulated by a few scissor cuts on the septum and alar cartilages, and is turned down, and the two branches of the external frontal at the root of the nose are ligatured if necessary. The anterior opening of the nasal fossæ would not give sufficient room to explore the naso-pharyngeal cavity, and it is necessary to disarticulate the septum. This is often pushed to the right or left by the polypus itself. It is easy to deflect it by the forcible introduction of the finger only. In some cases,

²¹ Goguel: "Résection Temporaire des Os de la Face."

a section with the scissors of the upper and lower part is useful to mobilise it *en masse*; but pushing it aside with the fingers alone has no inconveniences, and has the advantage of not interrupting the continuity of the mucous membrane. Ollier's process gives, with very extensive operating field, a well-nourished pedicle for the arteries of the sub-septum and nasal alae. After suture the nose, though a little blue, preserves its heat, and even partial sphacelus has never been observed. The traction which the weight of the nose would theoretically exercise upon the sutures has never been found practically to have any bad effect. Reunion, though very rapid for the soft parts, requires about six weeks for the bones, but fibrous union commences from the second week. In operations on the living subject Ollier has abandoned section of the ascending apophyses, and obtains none the less a sufficient opening to thoroughly expose the ethmoid. The cicatrix, after operation, is scarcely visible. In one case, to watch a persistent hæmorrhage, Ollier had to wait eighteen hours before sewing up the nose, and union was none the less perfect.

(c.) Brilliant as may be these preliminary operations, it must not be forgotten that it is only after them, at the moment of ablation of the tumour, that the true *tâche* of the surgeon begins. Undoubtedly, the larger the operating field the easier it is to control hæmorrhage, and the more the surgeon can follow without danger the ethmoidal prolongations. But complete ablation remains none the less too often both perilous and difficult. Ablation of hard tumours may be made with some regularity, and Ollier remarks that these recur less often than others. But the removal of soft tumours will be often a combination of tearing away, scraping, and cauterisation.

The latter may be performed with thermo- or galvano-cautery, or with chloride of zinc. It should be the necessary complement of all operations by "morcellement" in order to diminish the dangers of inoculation and incomplete removal. But the therapeutic result in case of incomplete removal will leave no room for much illusion.

(D.) Resection of the inferior maxilla is often necessary in diffuse tumours—less in order to obtain a larger space for the surgeon than to remove portions of bone invaded by the neoplasm. In a patient operated upon several times incompletely, and in whom successive recurrences had invaded the buccal cavity, the maxillary sinus, and the temporal fossa, Kirmisson²² by a resection of this kind obtained a prolongation of life of one year's duration. As all previous operations had been attended with extremely severe hæmorrhage, he performed ligature of the external carotid before resection. Ablation could not be complete, the pharyngeal implantations were entirely removed, but the ethmoid prolongations could not be followed to their termination by fear of meningitis. Surgeons have sometimes not hesitated to resect both maxillæ, and Braun²³ has been able to collect statistics of eleven cases of this operation. The results are scarcely encouraging. Four patients succumbed within a few days after the operation from shock, pyæmia, and embolism; five others

²² "Gaz. des Hôpitaux," p. 19, 1886.

²³ "Archiv. für Klinische Chirurgie," p. 739, 1876.

died from recurrences in three, seven, nine, fifteen and twenty-two months. The two patients recorded as cured have not been kept sight of for more than a year. It would be useless to describe in detail the proceedings employed in these operations. They are less routine operations than operations of necessity. Besides the two maxillæ, the turbinateds, and the vomer, Lang resected in one case both malar bones and a part of the ethmoid. In another Simon removed the maxillæ, the malar and palatine bones, a part of the vomer and ethmoid, and the zygomatic apophysis of the right temporal bone. Preliminary tracheotomy was required in another case of Simon's.

It ought to be added that cicatrization repairs these enormous mutilations marvellously. A cast at the Hôpital Saint-Louis represents a case operated upon by M. Péan,²⁴ in which the patient had submitted to total ablation of the nasal fossæ and both superior maxillæ for epithelioma. The cavity remaining after cicatrization appeared small in comparison with the loss of substance.

IV.

(A.) As has been seen, operations for malignant tumours of the nasal fossæ are very variable, both as to gravity and difficulty. It is difficult to indicate them in a general manner, with their operative sequelæ and therapeutic result.

1. The aftercourse of these operations is usually favourable, more so even than could be imagined from the extent of the mutilation. In double resections of the superior maxillæ the mortality reaches about 36 per cent. It has been *nil* in the seven cases of ablation of tumours of the inferior part of the septum which we have been able to collect. Of a total of fifty-one other cases of various degrees of gravity, which we have collected, we find mentioned only six deaths. The gravest immediate danger is hæmorrhage, and the falling of blood into the larynx seems to be a graver complication than hæmorrhage itself. Tamponing the posterior nasal fossæ avoids this complication. Infective phenomena have been pretty frequently mentioned in various observations. They are especially grave when the ethmoid has been operated upon, the least suppuration can, in fact, lead to meningitis. Erysipelas is also pretty frequent. Although the antiseptic method may be less easy of employment in operations upon the nasal fossæ than in those conducted upon regions less anfractuous and more accessible, it can, and ought to, diminish or suppress all such accidents. Riec²⁵ in his communication upon antiseptics in nasal surgery recommends particularly antiseptic douches before as well as after operation. As it is impossible to hope for a complete absence of exudation, and as it is impossible as in other wounds to keep this exudation protected from air, it is only by removing it that infection can be avoided. Tampons, even antiseptic powders, which favour retention, are more hurtful than useful. The ideas often emitted by Verneuil on the necessity of allowing a large opening of all cavital wounds are well known. First amongst antiseptics M. Verneuil places sprays of phenic acid. These are

²⁴ Special Collection of M. Péan, Specimen 701.

²⁵ "Annales des Maladies du Larynx," etc., No. 11, p. 524, 1883.

so much the more useful in that it is very difficult to apply spraying perfectly, and that it is necessary as much as possible to render healthy the medium in which the patient sojourns after operation.

2. Definite results are impossible to indicate, almost all the observations having been published in haste immediately after the operation. Even when the recurrence has been observed after a few months, this delay is evidently too short to enable one to speak of cure. In one case only, *viz.*, that of Masson, the patient has been observed for six years. The case is the more interesting, in that the last operation was made for a tumour which had already recurred twice. These results appear, generally speaking, but little favourable. Without speaking of cases where ablation has been incomplete, or repullulation is immediate, in a good number of the other cases recurrence is noted at the end of a few weeks or months. Pretty often this occurs in some spot where no attachment of the tumour previously existed: is it not then permissible to think of operative auto-inoculation? Without forgetting all the difficulties of surgical intervention, there is one criticism which appears to strike one on the reading of the records. It is that intervention seems to have been reserved, with all its resources and energy, for diffused tumours nearly inoperable, while, for small and limited tumours, it has too often been limited to half measures, avulsion, cauterisation, etc. It is, in fact, in the extensive and careful removal of these small tumours that the surgery of cancer will have real opportunities of being serviceable. As to great mutilations such as double resection of the maxilla, not much hope can be felt of their efficacy. Certainly for a fatal affection, endeavours at treatment of the most audacious and painful character are permissible. But the malignant character once proved, it is, paradoxical as it may appear, for tumours of the smallest kind that the surgeon should act with the greatest energy.

(B.) Can purely medical treatment be in any case curative and not merely palliative? It is superfluous to insist upon the utility of the internal use of arsenic in sarcomas, and of applications of chlorate of potash in epitheliomas. The latter has especially been successful in epithelioma of the skin of the nose, and in a case recorded by Terrier,²⁶ "the progress of an epithelioma of the septum was arrested, and cicatrization effected under the influence of local applications of powdered "chlorate of potash." The opinion of Voltolini on a method much less known, *viz.*, Zittman's decoction, deserves mention. He²⁷ recommends the use of the latter in cases where the diagnosis is uncertain from syphilis as well as in malignant tumours difficult to operate upon. Zittman's decoction comprises two preparations²⁸ which Voltolini re-

²⁶ "Thèse, d'Hydernaud," Paris, 1887, 2 observations, pp. 17-25.

²⁷ "Manuel de Pathologie Chirurgicale," tom. xi., p. 425.

²⁸ Voltolini, *loc. cit.*, p. 312.

²⁹ The two formulas of Zittmann are as follows:—

1.-r DECOCTION.			
Sarsaparilla	.....	400 grammes	
Digest for 24 hours in			
Water	.....	24,000 "	

commends to be administered alternately in the following way. The first day administration of a laxative pill composed of—

Resin of jalap	...	...	10 per cent.
Gum	...	...	25 „
Aloes	...	...	20 „

From the second day, morning and evening, half a litre of decoction No. 1, and in the afternoon a litre of decoction No. 2. This is continued for eight days. Towards the fifth day a fresh purgative pill is given if the patient requires it, and the treatment should be suspended this day. He ought, during the treatment to eat little, and keep nearly entirely at rest. Old physicians prescribed absolute rest in bed. After eight days' suspension of treatment, during which period the patient continues to eat sparingly and to husband his strength, the treatment is again commenced. In view of the composition of the medicament it is permissible to ask if the pretended cures of malignant tumours were not really cures of syphilitic lesions. It can only be in cases of tumours which cannot be operated upon, or where the diagnosis is incomplete, that this trial is allowable. In enfeebled subjects Voltolini recommends diminishing the daily doses to half, and doubling the duration of the treatment. In the cancerous, and especially in the old cancerous patients, these diminished doses will often be preferable.

(c.) Hæmorrhages which are so frequent and extremely abundant in the later periods of malignant tumours of the nasal fossæ may be combated by different methods. Tamponing, which is in hæmorrhages immediately menacing the method of necessity, ought not to be that of choice. It is always very painful and often favours the recurrence of hæmorrhages as much by displacement of clots at the moment of removal of the tampon, as by increasing cancerous ulcerations from the sojourn of infective septic products. When it is necessary to adopt this method, one ought to try and avoid, as much as possible, the latter effects by the employment of iodoform gauze.

It will also be indicated in order to avoid as much as possible the recurrence of hæmorrhage, to endeavour to obtain as complete as possible

Add	Sugar of alum (alum 4, kino 1)	...	...	50 grammes
	Calomel	...	...	15 „
	Cinnabar	...	...	5 „
Boil until reduced to one-third, and add—				
	Senna leaves	...	...	100 „
	Liquorice root	...	...	50 „
	Anise	...	...	15 „
	Fennel	...	...	15 „

Allow to infuse for some minutes, then filter. Half a litre morning and evening.

2ND DECOCTION.

Residue of the preceding Decoction, adding—				
	Sarsaparilla	...	...	200 grammes
Boil in	Water	...	...	9,000
Add	Citron peel	}	...	10 „
	Cardamoms			
	Cannella			
	Liquorice			

Filter. A litre in the middle of the day.

During summer it is well to reduce these doses by half so that the completion of the process may be more rapid, and the preparation will not have time to ferment.

an asepsis in the nasal fossæ. Insufflations, or inhalations of powder of boracic acid, iodoform, and especially salol, are especially useful in this respect.

Antiseptic douches must be made cautiously in order to avoid hæmorrhage by mechanical action; and it will be well to employ solutions either very cold or very hot. The latter which have the great inconvenience of being painful may constitute an effective means of arresting hæmorrhage. In consequence of the danger of intoxication one can scarcely employ other than boracic acid and chloral especially (10 per cent.). Fresh decoction of camomile is also a good disinfectant.

Antipyrine either in powder or solution (10 per cent.) is an excellent hæmostatic, and is one of the first things to try, at least in slight hæmorrhages. We may also mention the powder formed of one part of tannin to eleven of gum arabic (Guéneau de Massy). Compression of the carotid in the side corresponding to the hæmorrhage, or of both carotids in hæmorrhages of both sides has sometimes given good results. Amongst surgical procedures, ligature, either of the external carotid or of the common carotid, is, over and above its operatory dangers, only a doubtful resource. This ligation, in tumours of the nasal fossæ, has been oftener practised first during an operation, in order to diminish the loss of blood during the operation than as a method of arresting hæmorrhage. It will not guarantee the recurrence of hæmorrhage in every case, after more or less prolonged arrest.

For repeated hæmorrhages, the best plan will be to modify the ulcerated surfaces by cauterisation. Voltolini recommends particularly the galvano-cautery and electrolysis. The positive pole should always be intra-nasal when the object is to arrest hæmorrhage. Verneuil, in a case erectile tumour of the pituitary membrane, obtained great amelioration by cauterisation with the thermo-cautery. These were performed after posterior tamponning, through the opening obtained by a dorsal incision of the nose.

In an analogous case in a patient³⁹ in whom epistaxes were so abundant that he had to have transfusion of blood the first time, M. Périer had recourse to the following proceeding in the interval before the return of the hæmorrhage. The patient was given 10 grammes of chloral in order to avoid the administration of chloroform. Sleep being thus obtained, and posterior tamponning having been practised, the nasal fossæ were irrigated with about a litre of chloride of zinc (80 per cent.). The pain following, which was extremely severe, was controlled by injections of morphine. Therapeutic result was excellent. The operation was performed at the end of 1882, and since then some slight cauterisations made at rare intervals on points which seem to threaten to ulcerate, have sufficed to prevent any return of hæmorrhage. Once only during eight years, in 1886, was it necessary to have recourse anew to a more intense cauterisation with a solution of chloride of zinc of 30 per cent. The employment of a liquid caustic penetrating into the smallest anfractuosités, evidently permits the modi-

³⁹ Voir "Hayem Du Sang," Paris, 1880, p. 442.

fication of every ulcerated surface better than the thermo- or galvano-cautery. One other point deserves mention. The transfusion of 120 grammes of blood performed at the time of a first succession of epistaxes in February, 1882, led during more than a year to the cessation of hæmorrhages.

(D.) The symptoms produced by the enormous development assumed by the tumour in its latest stages is often such that one is tempted to submit it to removal—at least, partial. This is an illusory resource, upon which very little can be counted. In ablations performed to free the nasal cavities the clots formed by the hæmorrhage quickly obstruct the opened up passages. Ablations have been oftenest performed for the buccal prolongations. Primary hæmorrhage, even with the galvanic loop, is not always either easy to avoid or to arrest. Secondary hæmorrhage from the separation of eschars is a still greater danger. Repullulation is extremely rapid. In a case of Delstanches, a patient with cancer of the nasal fossæ,³¹ and in which there were prolongations obstructing the whole mouth, it was decided to remove the intra-buccal mass. Reproduction of the mass was so rapid that it was necessary to perform two new operations within three weeks, which, however, prolonged the life of the individual.

Voltolini in some cases, where it was especially necessary to remove the obstruction of the nasal fossæ, relates that he employed with success the galvano-cautery, and especially electrolysis.³²

The current, over and above the mechanical destruction which it produced, diminished the pains, and perhaps also delayed the progress of the affection.

INSTRUMENTS, THERAPEUTICS, &c.

Palmer.—*A Self-Retaining Nasal Speculum.* "Med. Record," Jan. 25, 1890.

THIS is very much like an eye speculum, and is said to be very serviceable in operations on the nose, as it is quite self-retaining. *B. J. Baron.*

Frickehaas (Elberfeld).—*Angular Nasal Tube of Glass and Glass Powder Blowers.* "Deutsch. Med. Woch.," 1890, No. 16.

UNDER these names the author describes two very fragile and unpractical pieces of apparatus for auto-insufflation. *Michael.*

Trautmann (Berlin).—*Electric Illuminating Apparatus for the Ear, Nose, Naso-Pharynx, etc.* "Deutsch. Med. Woch.," 1890, No. 15.

APPARATUS similar to the well-known one of Schütz, of Frankfurt. For electric power the author uses a dynamo. *Michael.*

³¹ "Annales des Maladies du Larynx," etc., p. 129, 1884.

³² *Loc. cit.*, p. 323.

Delavan.—New York Clinical Society Meeting of Oct. 25, 1889. "New York Med. Jour.," Nov. 16, 1889.

DR. DELAVAN showed an illuminator for the throat in the form of a curved glass rod, with opaque disc to prevent distribution of the rays of light, which is fastened to the neck and worked by an electric or other strong light. Dr. Delavan also showed a large intubation tube, which might be used for dilating strictured larynx.

Trautmann (Berlin).—*Electric Illuminating Apparatus for Ear, Nose, Naso-Pharynx, etc.* "Deutsch. Med. Woch.," 1890, No. 15.

DESCRIPTION of an apparatus with incandescent lamp, similar to all others. *Michael.*

Vohsen (Frankfurt-on-Main).—*Electric Illumination of the Cavities of the Human Body.* "Berl. Klin. Woch.," 1890, No. 12. (Reporting review.)

THE author has applied Blänsdorf's diaphanoscope with good results for illumination of the larynx, the nose, and the antrum of Highmore.

Michael.

Maxwell, P. W. (Dublin).—*A Method for Generating Neutral Tones of Ammonium Chloride or Bromide for Inhalation: with Demonstration of Instrument.* "Dublin Jour. of Med. Science," March, 1889.

THIS method consists in volatilizing the salts by heating in a glass cylinder. The free bromine is retained by means of a solution of resorcin.

Hunter Mackenzie.

Schuster (Aachen).—*Aristol in the Treatment of Naso-Pharyngeal Syphilis, with Remarks on Aristol.* "Monats. für Dermat.," 1890, No. 6.

THE author has applied aristol (a new iodine preparation, consisting of a red powder, without smell) instead of iodoform in the treatment of syphilitic ulcerations of the nose, and was satisfied with his results.

Michael.

Henderson.—*Note on the External Use of Sulphate of Iron.* Trans. Inter-Col. Med. Congress of Australasia, 1889.

THE author recommends a mop of cotton wool soaked in the glyceride (5i sulphate dissolved in just sufficient boiling water, and one ounce of glycerine added), and used as a swab to the throat two or three times a day in diphtheria as the best topical application he has yet found.

R. Norris Wolfenden.

Noltenius (Bremen).—*Communication from the Ambulatorium of Dr. P. Michelsen, Decent of Laryngology, Rhinology, and Dermatology in Königsberg.* "Therap. Monats.," 1889, No. 14.

On the Hemostatic Effect of Penghawar Wool.—The author has studied the effect of this preparation known since 1843. He found it more successful than ordinary wool. The cause of this difference he has found in the following circumstance. The ordinary cotton wool fills with blood, but the Penghawar wool only fills with blood at the circumference, and so retains its elasticity and makes a lasting compression upon the bleeding place. It is also aseptic and never causes suppuration. The best results were obtained from a combination of the wool with the drug.

The bringing forward ("Vorwischen") of Nasal Polypi and other Applications of the Nasal Brush.—By application of a brush, which the

author often also uses for other purposes, it is possible to bring nasal polypi in better situation for removal with the wire. *Michael.*

MacMunn, James (Crouch End).—*The Treatment of a Common Cold, etc.*
“Brit. Med. Jour.,” Dec. 14, 1889.

THE author recommends the following formula in the treatment of nasal catarrh :—

℞—Acidi Salicylici, grs. 4.

Acidi Tannici, grs. 6.

Bismuthi Subnitratiss, grs. 90.

To be used locally as a snuff.

Hunter Mackenzie.

Poletika, M. I. (St. Petersburg).—*Aniline in Phthisis.* “Russkaia Meditzina,” No. 1, 1890, p. 3.

THE author records twenty-eight cases of pulmonary tuberculosis (five of incipient phthisis, twenty-three of a more or less advanced character) treated after Professor Kremiansky's method. In other words, the patients were made to inhale aniline (from a two-necked bottle containing equal parts of the substance and water) and wintergreen-oil (ditto), from one hundred to two hundred times a day. They also were prescribed antifebrin in five-grain doses, three or four times daily (fever being present in every one of the patients). The duration of the treatment in individual cases varied from four to one hundred and fifteen days. The following are the main corollaries deduced by the writer from his clinical experiments :—

1. Most decidedly, aniline does not manifest the slightest “specific” influence on the disease. [Of the twenty-eight cases, in sixteen the physical pulmonary signs grew worse during and after the treatment : in eight they remained in their previous condition ; only in four a considerable decrease of râles was noticed. The number of tubercle-bacilli in the sputa decreased or disappeared only in three.]

2. Aniline, however, possesses a pronounced anæsthetic action, since in an overwhelming majority of cases it markedly relieves cough and expectoration, alleviates dyspnœa, and improves the sense of well-being.

3. The drug does not spoil appetite [to which circumstance the author attributes the fact that in twelve of his cases the body's weight increased from one and a half to eleven pounds during the aniline course].

4. Its antipyretic effects are uncertain. [In nine cases, slight decrease of fever occurred, while in other six fever increased.]

5. Of accessory effects, only giddiness and cyanosis (one case) and hæmoptysis (in five) were noticed. [In three patients pneumothorax developed during the treatment.]

Valerius Idelson.

Potter, F. H.—*The Use of Menthol in Diseases of the Upper Air-Passages.*
“Jour. of the Amer. Med. Assoc.,” Feb. 1, 1890.

THE drug was used by the author in strengths varying from 1 to 40 per cent. dissolved in oleum petrolina, which the author thinks preferable to olive oil. It is of a consistency easily sprayed by any atomiser with large orifice. Tubes made on the Sass or De Vilbiss pattern, or the atomisers made by the Davidson Rubber Company, numbered 52, 59 and 65, answer the purpose. Most other tubes fail to answer the purpose. Menthol can be dissolved in oleum petrolina up to 50 per cent. Those above 25 per cent. have been used by the author by inhalation, those below by direct

application. If the solution is too strong it will cause great pain. He has never been able to apply it to the nasal mucous membrane in more than 1 per cent. or 2 per cent. solution without cocaine except in atrophic conditions. Though cooling and grateful, the drug did not seem to have any marked effect upon ordinary acute rhinitis and its various forms. In rare instances of simple chronic rhinitis it was markedly beneficial. It has been useful after operations upon the nasal passages. It is very useful as an accessory treatment in atrophic rhinitis, and may be used even as high as 35 per cent. With returning sensitiveness weaker solutions will have to be used. In acute and chronic inflammations of the pharynx and mouth it is very satisfactory, and it will frequently lessen the duration of an attack of ordinary sore throat if taken early. It has been beneficial for the sub-acute and chronic inflammations of the larynx. The author's experience in tuberculosis of the larynx confirms the opinions of Rosenberg, Hyndmann, and Bishop as to its favourable properties. It diminishes hypersecretions and heals ulcers, but has little effect upon infiltrations. Dysphagia is lessened and nutrition improved.

R. Norris Wolfenden.

Von Stein and Stanislow, F. (Moscow).—*On Trichloroacetic Acid in Diseases of the Nose, Pharynx, Larynx, and Gum.* "Meditsinskoie Obozrenië," No. 20, 1889, p. 727.

THE author details his experience of trichloroacetic acid in the following affections :—

1. *Simple acute nasal catarrh*, and *coryza accompanying influenza*. A slightly warmed from 0·1 to 0·5 per cent. aqueous solution of the acid is instilled into the nasal cavities by means of a teaspoon, two or three times a day. Even shortly after the first instillation, the passages become free, congestion of the conjunctiva and tension about the forehead disappear, and then all other symptoms rapidly subside.

2. Morell Mackenzie's *catarrhus siccus abiens sæpe in ozænam* ("a fairly common affection, especially in luetic patients," according to Dr. Stein). The instillation of a 0·5 or one per cent. solution is rapidly followed by the disappearance of scurfs and bleeding, the nasal mucous membrane becoming moist and even turgid.

3. *Ozæna*. In milder cases, painting with a 0·5 or one per cent. solution, repeated three times daily, very rapidly removes fetor, softens crusts, decreases their re-formation, and improves smell. In severe cases, the author commences his treatment with painting by a 0·5 or one per cent. solution of the acid, and plugging the nasal cavities with gauze soaked in the same fluid. If necessary, a few days later, he passes to a stronger (three to five per cent.) solution, or resorts to a combination of iodine with the acid made after this formula : R— Iodi puri 0·06 ; potassi iodati 0·2 ; glycerini puri 30·0. Post solutionem adde acidi trichloroaceticæ 0·3—0·5. M. Of eight cases treated after the plan, in three no improvement could be obtained, but in the remaining five a marked amelioration soon ensued : the patient's subjective symptoms (headache, heaviness about the forehead and eyes, inability to work, etc.) considerably improved, crusts softened, bleeding subsided or disappeared altogether, fetor decreased, and so on.

4. *Hyperplastic rhinitis.* A small crystal of the acid is placed on the end of a probe and rapidly applied to the diseased region. The results are, as a rule, very good—especially in dry catarrh, vasodilator coryza (*vide* the JOURNAL OF LARYNGOLOGY AND RHINOLOGY, December, 1889, p. 512), and swelling of the nasal mucous membrane remaining after acute colds in the head. The acid should be preferred to galvano-caustics and chromic acid (in particular, in aged people, and children), since the reaction is comparatively slight, and the procedure almost painless.

5. *Chronic nasal catarrh*, with profuse purulent discharge, but without any marked hyperplasia. No special benefit is obtained from the acid.

6. *Adenoid vegetations.* Cauterisation with the acid is followed by a slow disappearance of the new growth, without causing any strong local irritation.

7. *Dry pharyngeal and naso-pharyngeal catarrhs*, with tendency to formation of crusts. Paintings with a 0·5 or one per cent. solution leads to a rapid improvement of all symptoms—"though not invariably."

8. *Acute laryngeal catarrh.* Painting or spraying with a one-twentieth to one-fifth per cent. solution of the acid (morning and evening), and simultaneous inhalations of a one per cent. solution of bromide of potassium (several times during the day-time), rapidly relieve cough and all subjective symptoms.

9. *Dry chronic laryngeal catarrh.* Painting with a from 0·5 to two per cent. solution of the acid, made once daily, or every other day, lead to a fairly good result, and that within a short period. It is advisable, however, to always begin with the weakest solution.

10. *Hyperplastic laryngitis.* Painting with a five per cent. solution, gradually ascending to the acid in substance (applied after painting the larynx with cocaine), proves more beneficial than the ordinary treatment by nitrate of silver. Reaction is always but trifling.

11. *Laryngeal tuberculosis.* Weak solutions lead to aggravation of the process. Stronger ones were not tried by the author.

12. *Gingivitis pyorrhoeica.* Painting with a ten per cent. solution (on cotton wool, introduced by means of a fine needle between the gum and tooth up to the alveola), repeated once every few days, leads usually to permanent cure.

Valerius Idelson.

DIPHTHERIA.

Prudden, S. Mitchell (New York).—*On the Etiology of Diphtheria.* "Inter. Jour. of the Med. Sciences," April and May, 1889.

THE author describes a streptococcus as the most constant micro-organism present in the diphtheritic tissues: it is apparently identical with the streptococcus pyogenes, and the streptococcus of erysipelas. He affirms that weak solutions of sublimate are very effectual as streptococcicides.

Hunter Mackenzie.

248 *The Journal of Laryngology and Rhinology.*

May, E. (Hanwell).—*Diphtheria and its Treatment*. "Lancet," August 17, 1889.

THE author recommends the removal of the membrane, the application of strong antiseptics, and the maintenance of the functional activity of the excretory organs.
Hunter Mackenzie.

Grosostheun.—*Treatment of Diphtheria*. "Münch. Med. Woch.," 1890, No. 16.

THE author applies thymol internally and externally, and is satisfied with his results.
Michael.

De Armond.—*The Need of Nourishment in Diphtheria*. "Weekly Med. Review," Oct. 26, 1889.

THERE is nothing new in this paper, the author merely insisting on the urgent necessity of careful and constant feeding on good milk and cream, with or without stimulants.
B. J. Baron.

Prudden, J. Mitchell, and Northrup, P. J. (New York).—*Studies on the Etiology of the Pneumonia complicating Diphtheria in Children*. "Internat. Jour. of the Med. Sciences," June, 1889.

A BACTERIOLOGICAL investigation. The authors believe a streptococcus the cause of the malady.
Hunter Mackenzie.

Walker, Jerome (Brooklyn).—*Notes from Practice*. Archives of Pediatrics, June, 1889.

THE author believes that the excessive moisture, and the high temperature of the room usually maintained in diphtheria to be distinctly prejudicial. The air of the sick room ought to be pure and cool, and occasional inhalation may be practised.
Hunter Mackenzie.

Earle, Charles W. (Chicago).—*The Contagiousness of Diphtheria, and its Municipal Control*. Archives of Pediatrics, May, 1889.

CONTAINS nothing of importance.
Hunter Mackenzie.

Stanley, Alfred (Birmingham).—*Local Treatment of Diphtheria*. "Brit. Med. Jour." Dec. 14, 1889.

A RECOMMENDATION of sulphur as an insufflation, a gargle, and an inhalation (fumes of burning sulphur).
Hunter Mackenzie.

Brothers.—*The Treatment of Croup*. "New York Med. Jour.," Jan. 18, 1890.

It may begin as (1) a simple catarrhal laryngitis. Nothing new suggested in the way of treatment. (2) A croupous bronchitis, which invades the larynx by upward extension, which the author believes is not nearly so rare a condition as it is supposed to be. The author prefers tracheotomy to intubation in these cases, where it is needful to operate to remove the stenosis, and he advises the use of very small tubes, which can be easily coughed out, and allow the fibrinous cast to follow where intubation is practised. (3) Diphtheritic laryngitis, or it may occur in connection with diphtheria of the nose, tonsils, or pharynx.

Stimulation, corrosive sublimate, and thorough cleanliness in nasal

diphtheria, are very necessary, and intubation has proved to be very successful. In tonsillar diphtheria the usual remedies are suggested.

The author is very fond of the free use of steam, and for nasal irritation he employs a very weak solution of common salt (less than half per cent.), lime water, or boric acid lotion—any of these to be used every one or two hours. Carbolic acid he does not prescribe in young children, as it is so apt to poison by absorption, but has had good results from spraying through the nose or mouth of a one to five thousand to ten thousand solutions of hydrarg. perchloride.

Internally he pins his faith on hydrarg. perchloride. He gives from one-eighth to one grain to a child two years old per twenty-four hours, for days together, and with the mercury he prescribes chlorate of potash and perchloride of iron, administered in small quantities every hour.

Heart stimulants of all kinds are valuable, but emetics must be used cautiously. At the beginning they are good, provided the patient be strong enough to stand them.

Out of nineteen cases intubated there were eight recoveries, or forty-two per cent.

B. J. Baron.

Ott (Prague).—*Erysipelas Faciei following Pharyngeal Diphtheria*. "Präger Med. Woch.," 1890, No. 14.

THE author relates two cases of severe diphtheria complicated by erysipelas. Both cases were cured. This complication is rarely observed, and it must be considered to be only an accidental complication, because both diseases are caused by totally different micro-organisms. (A Russian physician, Dr. Battschinsky, of Kiew, has observed some cases of diphtheria complicated with erysipelas all cured, though he believed them to be hopeless cases. He proposes, therefore, to inoculate erysipelas in bad cases, and believes that both diseases are antagonistic.) *Michael.*

Jamieson, James (Melbourne).—*On the Nature and Causes of Diphtheria, and its Relation to Croup*. Trans. of the Inter-Colonial Medical Congress of Australasia, 1889.

Hood.—*Notes on Diphtheria*. *Ibid.*

Dr. JAMIESON.—The first cases of diphtheria recorded in Victoria occurred at the end of 1858, and in Tasmania about the same time. The disease spread rapidly, and in 1860, 792 deaths were recorded. As regards its spread, diphtheria seems to have many points of resemblance to typhoid, in that insanitary conditions favour its spread. It is possible that the poison, which causes common ulcerative sore throat, may undergo some process of intensification, and produce the more serious disease, which is then transmissible from person to person. Cold and damp weather, which favour catarrhal sore throats, also favour diphtheria.

The author is strongly of opinion that diphtheria is a local disease primarily, and the throat affection may be very slight and be overlooked, and some such cases even have no constitutional symptoms, and his view is supported by local infection of the nostrils, toes, breast, etc. (examples of which are given), by the diphtheritic process. The short incubative period favours this view. He cites a case when a child, exposed to

infection at mid-day, had diphtheria well developed at night. Prof. O. Weber had a similar experience in himself. In searching for the group of diseases with which to class diphtheria, the author thinks that we shall not find it in the exanthemata. The progress of the disease more resembles erysipelas than scarlet fever, *i.e.*, a disease which takes its origin in infection of some local spot, *e.g.*, hospital gangrene, and the cases where severe constitutional symptoms have occurred, either without, or before severe throat symptoms are manifested, it is certain that there has been some faucial affection at an early period, which disappeared spontaneously, or under treatment. He has never seen death occur in which there has been no diphtheritic process at all.

Absorption of poison may take place quickly, *e.g.*, on a raw surface, or from a lacuna of the tonsil, at a time when very little is visible on the surface. Systemic infection may be due to admission of a specific virus into the system, or from the absorption of putrefactive products from the seat of the local lesion. The severe constitutional symptoms come on as a rule about the height of the local infection, and in proportion to its intensity. The disease differs from the exanthemata in that one attack does not give immunity against a second.

The disease should be treated as a local one, and efficiently, *i.e.*, with persistence with the remedy used, avoiding injury to the parts by cauterization and rough treatment.

The author is distinctly in favour of the view of the identity of croup and diphtheria, for which he adduces reasons. He insists upon the importance that this view should be held, for experience has convinced him that energetic local treatment can alone be relied on in faucial and laryngeal diphtheria (croup), though for manifest reasons it can never be depended on to be so successful in the latter as in the former.

Dr. HOOD. Basing his opinions upon seventy-five cases attended by him during four epidemics, he came to the conclusions that in certain districts of the colony diphtheria is endemic: that in purely epidemic diphtheria very few adults are affected, and when so affected their resistant power is greater than that of children, hence few deaths occur amongst adults. The four epidemics the author has seen always occurred in the autumn, when everything was burned up after summer heats, rivers low, and muddy banks exposed to hot sun, air dry, and full of dust and particles of decayed matter, and when everybody was worn out by a long hot summer, and staying power was low.

Early rectal alimentation, with addition of liquor strychniæ, is the means of saving many lives, especially in children who will not swallow medicine. He is convinced of the solvent power of zymine as a local application to the diphtheritic membrane. By applying pure carbolic acid to the patch in an early stage it is possible in some instances to shorten the duration of the disease.

In the discussion following the reading of these two papers

Dr SPRINGTHORPE stated that a large number of cases of "diphtheria" sent into the Melbourne Hospital turned out to be epidemic influenzal sore throat. Locally there was a deposit of mucus, simulating false membrane. Where the catarrh invaded the tonsillar and epiglottidean regions the

resemblance was marked. Probably such cases, and also simple catarrhal laryngitis, are called diphtheria in practice.

Dr. BARRETT said that a distinction must be made between diphtheria and such affections as follicular tonsillitis and forms of laryngitis with mucoid exudation (not false membrane). Cases undoubtedly existed, as quoted by Dr. Jamieson, where diphtheria was produced by local inoculation, but these facts did not prove that it could not be produced in any other way.

R. Norris Wolfenden.

MOUTH, TONGUE, PHARYNX, ŒSOPHAGUS, &c.

Cousins, J. Ward (Portsmouth).—*Melanotic Sarcoma of the Sub-Maxillary Gland.* "Brit. Med. Jour.," Dec. 14, 1889. S.E. Hants District, B.M.A., Nov. 14, 1889.

THE growth had been removed, and nine months previously the right eyeball of the same patient had been excised for melanotic sarcoma.

Hunter Mackenzie.

Cousins, J. Ward (Portsmouth).—*Salivary Calculus Removed from Wharton's Duct.* "Brit. Med. Jour.," Dec. 14, 1889. S.E. Hants District, B.M.A., Dec. 14, 1889.

EXHIBITION of specimen.

Hunter Mackenzie.

Barling (Birmingham).—*Congenital Syphilis.* "Brit. Med. Jour.," Nov. 23, 1889, Mid. Med. Soc., Nov. 6, 1889.

EXHIBITION of a girl, aged seventeen, the subject of congenital syphilis. She was the eldest of eight children, and the only one showing evidence of the disease. She was quite deaf, had double interstitial keratitis, Hutchinson's teeth, and severe ulceration of the palate. The soft palate was adherent to the base of the tongue, and food passed into the pharynx through a perforation on the right side which was not more than half an inch in diameter.

Hunter Mackenzie.

Rundle.—*Epithelioma of Tongue.* "Brit. Med. Jour.," Dec. 14, 1889. S.E. Hants District, B.M.A., Nov. 14, 1889.

PATIENT and specimen (one half of tongue) shown. Rapid recovery after the operation was believed to have been facilitated by the use of iodoform dissolved in tinct. benzoin comp., as a dressing.

Hunter Mackenzie.

Jacobson (London).—*Pre-cancerous Condition in Epithelioma of the Tongue.* "Brit. Med. Jour.," Dec. 14, 1889. Met. Counties Branch, S. London Dist. B.M.A., Dec. 4, 1889.

THE chief varieties of the pre-cancerous stage were stated to be leucoma, persistent chronic glossitis with hypertrophy and sulci, ichthyosis of the tongue, bald tongue, warts (especially those of syphilitic origin) on the posterior third of the tongue, fissures, cracks, and ulcers. Microscopical examination of the tongue by scraping, after the application of a five per cent. solution of cocaine, was recommended. Important symptoms were persistent painful induration or excoriation, commencing fixity of the tongue, and glandular enlargement.

Mr. GOLDING-BIRD thought Mr. Jacobson's conclusions too sweeping, for the conditions mentioned above were not always pre-cancerous. He agreed as to the importance of leucoma and ichthyosis. A persistently white tongue was more often due to syphilis than to smoking. All cases when first seen were more or less inflamed and needed potassium iodide for three weeks.

Hunter Mackenzie.

Garrison. — *The Galvano-Cautery for the Treatment of Hypertrophy of the Tonsils in Children and Adults; with Cases.* "Jour. of Ophthal., Otol., and Laryngol." Jan., 1890.

THERE is nothing new in this paper, and the author utterly fails to show that the guillotine ought to be superseded by the galvano-cautery. The paper smacks of tinkering surgery and homeopathy.

B. J. Baron.

Honman, A. — *The Correlation of Follicular Tonsillitis in Children, with other Zymotic Diseases.* Inter-Colon. Med. Congress of Australasia, 1889.

THE numerous instances where the disease has assumed the character of an epidemic, the persistent way in which it returns to a neighbourhood where the surroundings are unhealthy, and the distinctive symptoms of its course, lead the author to believe that there is a distinct relationship between this disease and others of a septic character. The onset was sudden, preceded by rigor or convulsions, or wild delirium. Tonsils and uvula were deep red; temperature 103°—105°; pulse below 120°. Twenty-four hours after the tonsils would be deeply congested and meeting in the centre; uvula oedematous. The exudation may be very extensive, white but less tenacious than diphtheria, and, having no inflammatory zone, on removal showing the crypts plugged with exudation. There are joint pains, tenderness over the tonsils, but no enlargement of lymphatic glands. Albuminuria frequently occurs. Within forty-eight hours these symptoms usually subside, and the child is well by the fourth or fifth day. In one case a child exposed to septic influence was laid up without any signs of diphtheria. All exudation disappeared, and the child went on well. A relapse occurred: well marked diphtheritic patches occurred on the tonsils, which spread to the larynx, and the child died. Three doors from where this child lived was a house where every child had been repeatedly liable to follicular tonsillitis. After the death of the child mentioned, these cases appeared to become more and more obstinate, and three months after one child had typical diphtheria, followed two months after by similar affection of another child.

In another case of ordinary follicular tonsillitis, convalescence was apparently occurring, when the temperature rose to 105°, the

symptoms became typhoid-like, and death resulted from perforation of the bowels.

In another instance, a man subject to follicular tonsillitis was laid up with an acute attack. He recovered without any peeling of skin. The sister was attacked in a mild form. Her two children had severe attacks of scarlet fever with desquamation, and in one case nephritis. The author believes, from the frequency with which he has observed series of cases of this disorder, where there has been no intercourse between the families attacked, that there must be a cause other than ordinary chill, and that this is defective drainage. In Williamstown, where the drainage is defective, the disease becomes quite epidemic, especially after there have been showers, and the ground has commenced to dry. In hot weather the disease has been prevalent also. The author instances cases where the obvious cause has been bad sanitation. In one house every child had follicular tonsillitis, and there were four cases of typhoid fever.

R. Norris Wolfenden.

Cheatham.—*Tumours of the Pharynx: Two Cases.* "The American Practitioner and New," Dec. 7, 1889.

THE first case is that of a boy, aged twelve, who suffered from a large sarcomatous growth, filling up the post-nasal space, and springing from the upper right side of the pharynx. It was removed by means of a Mathieu's tonsillotome passed through the mouth, the growth being dragged down by a vulsellum.

The second case is that of a man, aged sixty-seven, whose naso-pharynx was blocked by a roundish tumour covered with blood vessels, springing from the right side and right half of the posterior pharynx, and which bled profusely on being touched: it was not removed nor was its structure ascertained.

B. J. Baron.

Bell, Alan (Bishop Stortford, Herts).—*Removing a Foreign Body from the Oesophagus with a Soft India Rubber Tube.* "Brit. Med. Jour." Nov. 30, 1889.

NARRATION of the case of a child who swallowed a halfpenny piece. It was removed by the introduction and rapid withdrawal of a soft tube.

Hunter Mackenzie.

Rivington.—*A Case of Stricture of Oesophagus,* Hunterian Soc., "Lancet," May 10, 1890.

A LABOURER, aged sixty-one, had symptoms of stricture without apparent cause; a bougie passed fourteen inches. The disease was diagnosed as malignant. Bougies were persevered with, and on the twelfth day he passed the smallest tube, increasing until in two weeks more he passed No. 12 bougie with a bulbous end; he could now swallow bread-and-butter. He is doing his work, and gaining weight; no signs of syphilis. Mr. Rivington's second case was of an emaciated woman, aged fifty-five. During a month bougies were tried, once only passed into the stomach. She could hardly swallow anything; was constantly vomiting. On March 1st he performed gastrostomy, finding the stomach much contracted, like

small intestine, and having a mass of cancer at the cardiac orifice. The stomach was opened two days after, and a small glass tube left in, through which peptonised fluids are injected. A stone had been lost in weight during three weeks before the operation; five pounds and a half only in the seven weeks since.

R. Norris Wolfenden.

Harris, Thomas (Manchester).—*Unusual Case of Malignant Disease of the Esophagus.* "Brit. Med. Jour.," Dec. 21, 1889. Manchester Med. Soc., Dec. 4, 1889.

EXHIBITION of specimen. Death had been caused by perforation into the lung, and the production of pulmonary gangrene. Dysphagia had been of very sudden onset during a meal about ten months before death. The œsophageal tube could be not passed on some occasion, whilst on others, even a few days before death, it could be easily passed. The disease (ulceration) was situated about the middle third of the gullet; it extended three and a half inches in a longitudinal direction.

Hunter Mackenzie.

NOSE. NASO-PHARYNX, &c.

Brown, John (Manchester).—*Hypertrophy of the Bones of the Face, and of the Hyoid Bone.* "Brit. Med. Jour.," Dec. 21, 1889. Manchester Med. Soc., Dec. 4, 1889. (See Abstract, this Journal, May, 1890.)

Hunter Mackenzie.

Calman (Bloch).—*Empyema of the Antrum of Highmore, with Special Relation of Twenty-six Cases observed in the Polyclinic of Dr. Michelsen in Königsberg.* Inaugural Dissertation. Königsberg, 1890, p. 43.

THE author gives a review on the literature of this condition, and speaks of the etiology, anatomy, symptomatology, diagnosis, and therapeutics of the disorder. He refers the views of different authors on these points with special reference to Mikulicz's method, and then relates the results of twenty-two cases operated upon. In three of the twenty-six cases the patients would not submit to operation. In one of them an operation could not be finished because of abnormal thickness of the bone. Cooper's operation was performed in fourteen cases; Mikulicz's in four; Ruster's in one; Krause's in one. Of these cases, thirteen were cured, four improved, and four not benefited. The duration of the after-treatment was in eight cases from three to fourteen days; in four cases one to ten months; in one case two and a half years. It seems that the point operated upon is of no great significance as to the result.

Michael.

Zwaardemaker, H. (Utrecht).—*On Measurement of the Sense of Smell in Clinical Examination.* "Lancet," June 29, 1889.

DESCRIPTION of an instrument (the "olfactometer" designed by the

author for the exact estimation of the degree of anosmia which may be present in a given case.
Hunter Mackenzie.

Kitchen.—*On the Legitimacy of the Extensive Intra-Nasal Surgery of the Present Day.* "Med. Record," Jan. 18, 1890.

THE author does not write very enthusiastically of operations on the nasal septum, of which he appears to have done a good many. He considers that almost all the good results of operation in the nose are in the line of alleviation and not of curative effect. When we perform nasal operations that bring about cicatrization, and the binding down of mucous membrane that is liable to swelling, and when we quiet hyperæsthetic nerve filaments we are doing good work. He concludes thus: "In my opinion, the persons who will in the future be the most successful in "*curing*" intra-nasal affections, will be hygienic teachers, and the promoters "of sanatoria in locations, favoured with superior climatic and other "advantages."
B. J. Baron.

Hamilton, T. K.—*Ocular Symptoms due to Diseases of the Nasal Cavities.* Trans. Inter-Col. Med. Congress of Australasia, 1889.

1. EMPYEMA of the anterior and unilateral hypertrophic rhinitis of left side, concentric contraction of the visual field for all colours, accommodative asthenopia, retinal hyperæsthesia, peculiar subjective sensations of light, photophobia with blepharospasm and infra-orbital neuralgia. The evacuation of the empyema and its cure was followed by cure of the eye symptoms.

2. Ecchondrosis of the triangular cartilage and chronic rhinitis with asthenopia, pain in the eyeball, injection of the eyes when used for close work, blepharospasm, contraction of the visual fields. All eye symptoms disappeared on removal of the growth.

3. Spine of the bony septum causing chorea magna, asthenopia, subjective colour sensation, sneezing, contraction of the fields of vision. All cured by removal of the spine.

4. Advanced chronic atrophic rhinitis with middle turbinated, hyperphasia causing asthenopia, lachrymation, puffiness of the lower lid, contraction of the visual fields. All relieved by treatment of the nose.

5. Syphilitic ozæna, asthenopia, lachrymation, pericorneal injection on using the eyes, contraction of fields of vision (temporarily removed by amyl nitrite). Eye symptoms improved as nose improved.

6. Polypi, nasal and naso-pharyngeal with eye symptoms similar to those recorded.

7. Post-nasal growths. Of 106 cases eye symptoms co-existed in 51; in 22, catarrhal conjunctivitis; in 7, follicular conjunctivitis; in 16, granular conjunctivitis; in 6, blepharitis.

R. Norris Wolfenden.

Spicer, Scanes.—*Nasal Obstruction and Mouth Breathing as Factors in the Etiology of Caries of the Teeth, and in the Development of the Vaulted Palate.* Trans. of the Odont. Soc. of Great Britain, Jan., 1890.

THE author has been struck with (1) the great prevalence of caries of the

teeth in patients with nasal obstruction and mouth breathers ; (2) the frequency of the vaulted palate and irregularities of the teeth, viz., growth outwards and forwards of the canines, and obliquity and overlapping of the incisors of the upper jaw.

The author remarks upon the greater frequency of nasal obstruction in civilised Europeans than in negroes, Red Indians, etc. The latter are almost universally nose breathers. Animals are also free from nasal obstructions. In civilised races these obstructions are brought about, according to the author, by environment—*i.e.*, heating of houses and exposure to changes of temperature. The nasal mucous membrane then erects, inflames, and hypertrophies, and there is no tendency to spontaneous recovery. The irritating secretions irritate the lymphoid channels and follicles in the naso-pharynx, and adenoid vegetations result. (According to the author's view, adenoid vegetations should be commonest in the adult, the fact, however, being that they are commonest in the young child, and tend to atrophy towards adult life.) Mouth breathing leads to dental caries by increasing the stream of micro-organisms and of oxygen in the inspiratory current ; by producing congested and inflammatory states of the buccal mucous membrane, with increased secretion of highly acid mucus ; by dessicating the secretions of the mouth, and favouring their adherence together with organic *débris* to the pits and irregularities of the teeth ; by the alteration of the positions of the lips, cheeks, and tongue in relation to the teeth, so that the latter cease to be constantly scoured with saliva by the incessant action of the former : by the substitution of a cold-air bath during mouth breathing for the warm bath of saliva, which incessantly floods the mouth when it is shut, and flushes away any *débris* and micro-organisms that may have collected.

The highly arched and vaulted palate, the contracted alveolar arch and irregularities of the teeth of the upper maxilla, associated with nasal obstruction, admit of explanation on the hypothesis of prolonged disuse of the nasal channels for their natural functions during the growth of the organisms, leading to stunted evolution of the nasal framework. The septum and sphenoidal sinuses take part in this, and fail to push down the palatine processes of the maxilla, while the rest of the face and the freely-used alveoli continue to grow. The median line of the hard palate along the attachment of the vomer tends to retain its infantile position. The weight of the lower jaw, dropped in mouth breathing, acts through the tissues of the cheeks, and presses on the superior maxillary alveoli, flattening each curved lateral half so as to diminish the space available for the eruption of the canines and other teeth which, therefore, assume irregular positions.

R. Norris Wolfenden.

Rumbold.—*Five Reasons for Failure in Treating Chronic Rhinitis.* "The Med. Record," Nov. 23, 1889.

1. The use of a bad tongue depressor, which caused retching without properly exposing the parts.

2. The use of spray producers that are adapted only for watery solutions, and not oily ones such as warm vaseline, which is said to be

much better than cosmoline, because it stays longer in contact with the mucous membrane.

3. Improper air pumps for working the spray apparatus. Not more than ten pounds of pressure ever ought to be used for cleansing or applying remedies. It must always be remembered that the mischief commences on the inferior and middle turbinated bones, and spreads from them. Probes for the anterior and posterior nares ought not to be used for cleansing purposes.

4. Forgetfulness of the function of the nasal mucous membrane, and the belief that, after an operation has been successfully performed for the relief of nasal stenosis, nothing else remains to be done, causes the air that enters the throat and lungs from a nose in which cicatricial tissue has replaced the proper normal structure to be abnormal in the moisture, etc., that it contains. Insufflation of powder into the nose is said to be very bad.

5. Neglecting to keep in mind the fact that all inflammation is the result of irritation, and thus allowing the irritant, whatever it be, to continue to act.

Indications for correct treatment of chronic rhinitis are as follows :—

1. Remove acrid secretion—morbid growths should be also removed.
2. Prevent the new secretions from becoming acrid.
3. Hygienic and sanitary measures, such as avoidance of smoking, chewing, alcohol drinking, keeping late hours, short hair-cutting, etc.

B. J. Baron.

Mackenzie, John N. (Baltimore).—*A Hitherto Undescribed Neurosis of the Aural Apparatus Closely Allied to Coryza Sympathetica.* "Internat. Jour. of the Med. Sciences," Feb., 1889.

A WOMAN suffered each summer from a swelling of the cutaneous lining of the external auditory meatus, accompanied by a discharge, and at the same time, from congestion of the corresponding side of the nasal passage. These had recurred for twenty-two years. (*Vide* "JOURNAL OF LARYNGOLOGY AND RHINOLOGY," 1889, No. 1, p. 47).

Hunter Mackenzie.

Hall, De Haviland (London).—*Hay-Fever and Hay-Asthma.* "Lancet," June 15, 1889.

A REVIEW of these complaints, and their treatment. *Hunter Mackenzie.*

Ball, James B. (London). — *Intra-Nasal Disease and Asthma.* "The Practitioner," June, 1889.

THE author is of opinion that in almost every case of asthma, a nasal complaint is present. He reviewed the recent literature of the subject.

Hunter Mackenzie.

Anderson, C. M. (Christchurch, N.Z.).—*Nasal Calculus from a Girl Aged Ten Years.* Trans. of Inter-Colonial Medical Congress of Australasia, 1889.

A CHILD in bad health had profuse purulent offensive discharge from the right nostril which had existed a year. Fancying that he could feel some dead bone at the posterior end of the inferior turbinated body, the author proceeded to remove it under chloroform. It proved to be a nasal

calculus, with a cherry stone as a nucleus. The girl persistently denied ever having inserted a cherry stone into the nose, and probably, while eating cherries, a stone was coughed or sneezed up into the posterior nares.

R. Norris Wolfenden.

Mitchell, S., Jun.—*Perforation of the Septum.* "Med. Record," Jan. 11, 1890.

THIS is a report of a case of perforation of the cartilaginous septum, which occurred owing to the turbinated bone touching the septum setting up irritation, which led to scratching the latter with the finger nail, and this led to the formation of a perforation as large as a ten-cent piece. It was treated by enjoining the patient not to touch his nose, placing a small pledget of cotton, smeared with diluted unguent hydrarg. nitrate, in the hole, and allowing it to remain *in situ* for twenty-four hours; then renewing it, and so on to the end of the case, which resulted in cure.

B. J. Baron.

Wright.—*An Operation for Correcting Deviation and Thickening of the Cartilaginous Nasal Septum.* "Med. Record," Jan. 11, 1890.

THE operation is as follows:—After the application of cocaine an electric trephine is used to bore a tunnel in an antero-posterior direction through the thickened and bent septum, keeping as near the mucous membrane covering the concave part as possible. A Bosworth saw then works in this tunnel upwards and downwards, and the septum, being now pliable, is plugged over to the concave side by absorbent wool plugs, soaked in a one to five thousand solution of corrosive sublimate. These plugs are to be changed every day, or every other day, and careful antiseptic cleansing thoroughly carried out.

B. J. Baron.

Zeiss, R. W. (Philadelphia).—*The Pathology and Treatment of Intra-nasal Sclerosis.* "Internat. Jour. Med. Sciences," Feb., 1889.

FOR the treatment of intra-nasal sclerosis (hypertrophic nasal catarrh) the author prefers the use of cutting instruments to the employment of galvano or chromic acid cauterization.

Hunter Mackenzie.

Bramann (Halle). — *On Dermoids of the Nose.* "Langenbech's Archiv," Band 40, Heft 1.

THE author showed two cases of this rare disease in the "Berliner Medicinische Gesellschaft" last year. (Compare the report in this Journal.) In this paper he states that all these tumours have an origin from the embryonic period, and cannot be confounded with atheromatous tumours caused by traumatism or occlusion of the epidermoidal glands. He adds six observations from his own practice. In four of the cases a tumour existed on the dorsal or lateral aspect of the nose; in two cases it had its origin in the nasal cavity. This extensive treatise on the nature of these tumours must be seen in the original.

Michael.

Hamilton, T. K.—*Post-Nasal Growths.* Trans. Inter-Col. Cong. of Australasia, 1889.

THE author distinguishes between post-nasal growths and enlargements of the pharyngeal tonsil, the difference being, however, merely one of

degree. Though scrofula or some such diathetic tendency may in many cases act as a strong predisposing cause to lymphoid hypertrophy in the pharynx and naso-pharynx, these are exciting causes principally connected with digestive derangement which act more surely than diathesis alone. He has noted the following unusual symptoms, noise and difficulty of swallowing, laryngismus stridulus, useless cough and hawking, asthenopia, epistaxis. He discusses also the methods of examination, placing little reliance upon anterior rhinoscopy and more upon posterior rhinoscopy and digital examination. For operation he prefers the forceps or Gottstein's knife.

R. Norris Wolfenden.

LARYNX.

Glasgow, W. C. (St. Louis).—*Cavernous Angioma of Larynx—Removal, with Drawings and Description of the Microscopic Sections prepared by Dr Ludwig Bremer.* "Internat. Jour. of the Med. Sciences," April, 1889. (See also "JOURNAL OF LARYNGOLOGY AND RHINOLOGY," 1889, No. 1, p. 55.)

THE title indicates the nature of the case. The angioma, which was about the size of a pea, was removed from the vocal cord with Schröter's forceps. Considerable hæmorrhage followed the operation.

Hunter Mackenzie.

Mackenzie, G. Hunter (Edinburgh).—*Case of Spontaneous Disappearance of Laryngeal growths after Tracheotomy.* "Lancet," April 6, 1889.

REPORT of the case of a boy, aged five years, who, in 1883, underwent tracheotomy for laryngeal stenosis from warty growths. The growths disappeared after the cannula had been worn for a year; this was then removed and complete recovery ensued, and without the development of sequelæ.

Hunter Mackenzie.

Brown, J. G. (Bootle).—*Malignant Disease of the Larynx.* "Brit. Med. Jour.," Nov. 30, 1889.

RECORD of a case which presented the initial appearance of a papillated pedunculated growth, springing from behind the epiglottis, and having an attachment from the angle of the thyroid cartilage. The growth and a piece from the left side of the larynx were removed, and tracheotomy was performed. The patient progressed satisfactorily for a short time; in three months the disease had recurred in the larynx, and the glands of the neck also became affected. He died five months after the operations. During the last three or four weeks of life he was troubled with persistent vomiting, which resisted all treatment.

Hunter Mackenzie.

Chavasse (Birmingham).—*Laryngectomy.* "Brit. Med. Jour.," Nov. 1889. Mid. Med. Soc., Nov. 6, 1889.

EXHIBITION of the right halves of the thyroid and cricoid cartilages,

removed by laryngectomy. The patient was a boy, aged five, who, as the results of diphtheria and intubation, had complete stenosis of the larynx. Result satisfactory. *Hunter Mackenzie.*

Batori.—*Pneumonia from a Foreign Body in the Lung—Cure by Expectoration of the Body.* "Festher Med. Chir. Presse," 1890, No. 8.

A GIRL, six years old, inspired a melon seed. In spite of the asphyxia the mother would not allow tracheotomy. Pneumonia followed, lasting for nine weeks. Cure was effected after expectoration of the body.

Michael.

Groenw (Breslau).—*Acute Oedema of the Glottis following the Use of Potassium Iodide.* "Therap. Monats.," Mar., 1890.

THE author has observed this event in three cases, and refers to the cases reported in the literature.

Michael.

Nykamp (Leyden).—*Experiments on the Effect of Hot Air Inhalation in Weigert's Method for Laryngeal Tuberculosis.* "Deutsch. Med. Woch.," 1890, No. 18.

FROM his experiments the author has found that with this apparatus it is not at all possible to produce as high temperatures as Weigert says; that during the inspiration of hot air of 200°C. a thermometer in the trachea only registers a temperature of 36°C. The author has also applied the method to patients without any effect.

Michael.

Lauenburg (Würzburg).—*Two Cases of Cured Laryngeal Tuberculosis.* "Münch. Med. Woch.," 1890, No. 17.

THE first case was examined one year after the treatment, and the permanence of the cure is stated. In the second case laryngeal ulcers were cured during a progressive tuberculosis of the lungs. Here cicatrization was found at the *post-mortem* examination. In both cases lactic acid was applied.

Michael.

Beale, E. C.—*Laryngeal Affections in Phthisical Persons.* "Birmingham Medical Review," April, 1890. (A Lecture given by the author at the Victoria Park Hospital for Diseases of the Chest.)

THE author finds the larynx as affected in some manner in about four-fifths of all cases of pulmonary phthisis. He lays stress upon *partial* anæmia as one of the first symptoms—excluding general anæmia. In phthisis this partial anæmia is often limited in extent, especially to the epiglottis or ventricular bands. Narrow injected vessels course over the surface. Along with this is anæsthesia, hyperæsthesia, or paræsthesia. "Blushing of the larynx" is not uncommon upon irritation (e.g., laryngoscopic examination), and the anæmia may then be masked by hyperæmia. General hyperæmia is less common than anæmia. Injected vessels may be localised upon one vocal cord, and patchy hyperæmia may occur upon the arytenoid and inter-arytenoid mucous membrane or either ventricular band. This is only of short duration, and tends to spontaneous recovery, but may persist and be followed by swelling. They are to be regarded with suspicion as indicating the presence in the submucosa of some

irritant. Congestions and catarrhs of the larynx are often limited, and when so to one side of the larynx or one vocal cord, the author has found them less amenable to treatment than when general. These local manifestations in the larynx lead the author to the belief that the larynx is thus rendered liable to infection. The graver lesions which occur later on are also very prone to be limited to one side of the larynx, and lead to the view that such lesions must be the result of local inoculation of the submucous tissue either from within or without, and the earlier local disturbances of circulation may favour the subsequent development of the inoculated morbid material.

The results of local treatment often give the best guide to the diagnosis of a common catarrhal laryngitis in a tubercular patient and a catarrh of really tubercular nature. The former soon gets better, the latter not. The bacillary test is not trustworthy in the early stages. Besides the common forms of infiltrative swellings, the author has three times in 200 cases met with firm, rounded tumours with broad base situated exactly between the arytenoid cartilages, and in a few instances he has seen single or multiple rounded bosses, the size of a split pea, situated on the free edge of the epiglottis or arytenoid cartilage. They are firm, resistant, pale, gelatinous, and surrounded with a hyperæmic ring. He has often also seen little fleshy protuberances on the surface or edges of the vocal cords.

As to treatment, he remarks that "no one, however biassed he may be, can read Heryng's record of work without a feeling that similar attempts ought to be made in our own practice, even though our early results may not be encouraging." No one would advocate the use of such strong and unpleasant remedies in a case of laryngeal phthisis accompanying rapid or advanced tubercle of the lung, but efforts might be made in cases where the pulmonary conditions are quiescent. Spontaneous recovery from tubercular infiltration may, though rarely, take place in the larynx, as in the lungs. All catarrhs in the early stages of phthisis should be actively treated. Inhalation by oro-nasal or steam inhalers should be efficiently carried out with benzoin, creosote, carbolic acid, pinol, iodoform, and eucalyptus. Insufflations of iodoform, boracic acid, morphia, may be employed, and steam applications (lactic acid, chlorate of potash, terebene, or pinol) are useful. In the chronic stages, brush applications of lactic acid, tincture of iron, chloride of zinc, nitrate of silver or menthol are recommended. Local ulceration, if chronic, may require powerful stimulation by solid nitrate of silver or chromic acid. The last stage of ulceration calls only for palliative treatment and the use of cocaine, or solution of morphia in gum acacia, swallowed slowly in sips before attempts to swallow food. Instances are rarely seen in *post-mortem* in which it could be said that tracheotomy would have afforded relief to such cases, and the balance of opinion is against its performance.

R. Norris Wolfenden.

Favitzky, A. P. (St. Petersburg).—*On the Treatment of Laryngeal Tuberculosis by Creolin and B-Naphthol.* "Meditzinskoïe Obozrenië," No. 19, 1889, p. 585.

THE author details results obtained in Professor D. I. Koshlakoff's clinic from the treatment of laryngeal phthisis by painting with creolin and naphthol. Creolin was tried in nine cases (seven men and two women, aged from thirty to fifty-two). It was employed in the form of solutions made of from a few grains to half-a-drachm of the drug and three ounces of distilled water and glycerine (in equal parts). The paintings (first with weak solutions, and later on with increasingly stronger ones) were repeated three or four times weekly for a fortnight to six weeks. The results were very far from being satisfactory. In a majority of the cases, no amelioration, either subjective or objective, whatever could be noticed. In a few, a slight improvement occurred, which, however, soon passed away, and sometimes was even followed by a marked aggravation of the laryngeal process.

Naphthol was resorted to in ten cases (seven men, three women, aged from twenty-nine to fifty-two). It was used in the form of a solution prepared of from half to two drachms of the drug, and one ounce of oil of sweet almonds, the painting being made several times a week. In several cases, the drug produced a distinct local anæsthetic action—that is, relieved pain on swallowing and diminished cough. In some, the patient's voice became stronger and clearer, or even was fully restored to a normal condition. The action on the morbid process itself, however, was found to be limited to some decrease of infiltrations and a slight improvement in the appearance of the ulcers. In none was anything like healing observed.

Valerius Idelson.

Cheatham.—*Intubation.* "The American Practitioner and News," Dec. 21, 1889.

THIS is an account of a few out of thirty-two cases intubated by the author of the paper with ten successes, all the patients being *in extremis* before the operation was performed.

B. J. Baron.

Eastes, T.—*Catherization of the Larynx.* "Brit. Med. Jour.," Dec. 14, 1889. S.E. Branch, E. Kent Dist. B.M.A., Nov. 28, 1889.

NARRATION of the case of a newly-born infant, who had been rescued from a state of asphyxia by catheterization of the larynx, and subsequently by the performance of artificial respiration.

Hunter Mackenzie.

Powell, R. Douglas (London). — *The Diagnosis and Treatment of Aortic Aneurism.* "Brit. Med. Jour.," Dec. 21, 1889. Med. Soc. of London, Dec. 16, 1889.

IN replying to the discussion on this subject, Dr. Powell expressed concurrence with the view advanced by Dr. de Haviland Hall, that stridor in these cases is usually caused by pressure on the trachea or bronchus, and is, therefore, not likely to be relieved by tracheotomy.

Hunter Mackenzie.

Giesen.—*A Contribution to the Pathology of the Laryngeal and other Crises in Tabes.* "Med. News," Mar. 5, 1890. New York Hemological Soc.

THE author read notes of a case of tabes with laryngeal attacks during the last year of illness. One of the crises proved fatal. Microscopical examination showed the lesions of a chronic neuritis of the roots of the

vagus and accessory portion of the spinal accessory nerves on both sides. Neuritis of the root fascicles or trunks of one or both of these was regarded as more frequently the cause of the laryngeal crises than central lesions.

The author divided laryngeal crises into two classes: First, those in which the glottis constrictors and dilators were normal and the crises occurred from reflex spasm of the adductors; second, a larger class of cases in which the constrictors and dilators were in a greater or less degree of paralysis.

The first form of the crises might be produced by a neuritis of the roots of the accessory portion of the eleventh nerve, irritating the sensory fibres of the larynx, and being responded to by motor impulses through the vagus, which would produce closure of the glottis by contraction of the adductors. The second form of the crises might be produced by a destructive stage of the neuritis in the vagus, inducing a motor inability of both the adductors and abductors. But as it has been shown experimentally in animals that the adductors are stronger than the abductors, a reduction of power in both sets of muscles would render the equilibrium of the two sets of muscles so unstable that reflex irritation of the motor laryngeal fibres, or direct irritation of these fibres in the vagus by the neuritis, would be responded to by a contraction of the stronger adductors, analogously to the results of artificial stimulation of the motor laryngeal fibres in animals. When the neuritis affects both the vagus and accessory nerves together, the conditions are favourable for the production of violent crises. A localization of the lesions causing the other crises in tabes was based on Gaskell's description of the distribution of the sympathetic system.

R. Norris Wolfenden.

Grossmann (Wien).—*Tracheal Stenoses*. "Wien. Klin.," Heft 3 and 4, 1890.

THE author has produced a very complete and well-written treatise on the subject. He begins with the etiology, and treats first of—

(a) *External compression* by struma, illustrated by very instructive tables of rare cases of benign and malignant tumours of the thyroid gland. Compression also may be produced by tumours of the lymphoid glands, hygromata, acute and chronic inflammation of the cellular tissue, and by aneurisms. He relates a case of aneurism from his own practice, and gives the illustration of the specimen.

(b) *Intra-tracheal stenoses*. — They are caused by intra-tracheal diseases, and, secondarily, by operations, such as tracheotomy, and the use of cannulas. In the first group are inflammations and consecutive œdema. Most dangerous are the erysipelatous and phlegmonous inflammations. Œdema also may be produced by perichondritic, metastatic, and ulcerative processes, and by granulomata. Granulomata may be produced by ulcerations, and by cannulas. Sometimes after the removal of the cannula these neoplasms may arise and cause fatal result. Characteristic of the granulomata is the circumstance that the dyspnœa caused by them is greater during sleep. After tracheotomy the trachea also can become stenosed by formation of spurs (Passavant), by swelling of the mucous membrane from inspiratory traction (Michael),

by formation of valvulae in the mucous membranes (Koch), by weakening of the cartilages (Michael), and by formation of cicatrices (Weber, etc.).

Neoplasms of the trachea are rather rarely observed. A curious case is recorded by Lange. An intussusception of the trachea was produced through traumatism. The patient could only respire when the head was retroflexed. The condition was so painful that the patient ended it by suicide. The diagnosis of the disease was made by the *post-mortem* examination. The usual cause of chronic stenosis is syphilitic cicatrization. Also in typhus and tuberculosis cicatrices are sometimes observed.

Concerning diagnosis, the most important symptom is the characteristic noise. To a certain degree the stenosis is compensated for by slow and deep respiration, so that in some cases the patients do not know that they are dyspnoic. The author then treats extensively of the influence of stenoses on the heart, and relates the opinions of other authors on the subject. In nearly all cases is the pulse diminished and stronger. Mechanically, and from the effect of the bad oxidation of the blood, the pressure in the venous system is increased. At this time the heart is so damaged that, even if the stenosis is removed by tracheotomy, an improvement of the patient is not often possible. The special diagnosis is to be made by the laryngoscope. The stenosed place can often be viewed directly. Sometimes by the paralysis of the left vocal band, or of both, an aneurism or a tumour compressing the recurrent nerve can be diagnosed. The prognosis varies according to the originating cause and its curability. Deep-seated stenoses cannot often be cured. High situated stenoses can be cured by tracheotomy. To cure the causative condition we use, in cases of cicatrices, dilatation; in cases of neoplasms, extirpation; in compressing stenoses, operations upon struma or neoplasms; in aneurisms, the more or less effectual methods which have been recommended.

Michael.

THYROID, NECK, &c.

Young, A. H. (Manchester).—*Adenoma in a Thyroid Gland in a Leopard.* "Brit. Med. Jour.," Nov. 23, 1889. Pathological Soc. of Manchester, Nov. 13, 1889.

EXHIBITION of sections of the thyroid gland from a young adult leopard, which contained numerous small nodules of tumour growth. With the exception of these nodules, the gland was normal. — *Hunter Mackenzie.*

Chavasse (Birmingham).—*Tumour of the Thyroid Gland.* "Brit. Med. Jour.," Nov. 23, 1889.

EXHIBITION of specimen, weighing nine ounces. It was removed from a woman, aged forty, in whom it had existed since very early life, a marked increase following each pregnancy. *Hunter Mackenzie.*

Davis.—*Three Cases of Bronchocele.* Hunt. Soc. "Lancet," May 10, 1880.

THE cases of two sisters and a niece, all born at one village in Devonshire ; also a fourth patient, unrelated, but who lived in the same village, and had lived for three months in the same house. The tumour in the first case contained some fibrous growth ; the others seemed purely glandular.

Mr. HOVELL said that the internal administration of iodine, beginning with five minims of the tincture, with hydrochloric acid and glycerine, thrice daily, answered well in simple glandular cases. When the gland was fibrous, injection of tincture of iodine was the best treatment, and in a large experience he had met with no serious results, excluding, of course, cases of cystic goitre.

Dr. HINGSTON FOX remarked on the connection between disorders of the thyroid gland and menstruation, referring to a case of inflammatory enlargement shown before this Society, and to cases of women whose thyroids enlarge at the catamenial epochs. *R. Norris Wolfenden.*

Folker.—*Enlarged Thyroid.* "Brit. Med. Jour.," Dec. 21, 1889. Staffordshire Branch, B.M.A., Nov. 28, 1889.

EXHIBITION of a girl, aged eighteen, suffering from an enlarged thyroid of five or six years' standing, and which was lately causing great dyspnoea. The isthmus after having been tied in two places was divided, with immediate relief to the breathing. *Hunter Mackenzie.*

Symonds, Charters (London).—*Thyroid Cysts.* "Brit. Med. Jour.," Dec. 21, 1889. Clin. Soc. of London, Dec. 13, 1889.

EXHIBITION of two patients from whom thyroid cysts had been removed. One had a sympathetic paralysis of the eye. *Hunter Mackenzie.*

Wolfier (Graz).—*Surgical Anatomy and Pathology of Goitres and Accessory Goitres.* "Langenbech's Archiv.," Band 50, Heft 1.

GOITRES, clinically, must be subdivided into benign and malignant. The benign tumours are (1) foetal adenomas ; (2) gelatinous adenomas ; (3) hypertrophy of the strumous gland ; (4) vascular struma. The latter form has only a clinical, and not a pathological, anatomical signification. Hypertrophy may be partial or complete. The goitre may exist on both sides, and enclose the air-tube and the œsophagus in a tubular form. If the goitre is only situated on the sides of the neck it has much less surgical importance than if its situation is abnormal, such as between the trachea and œsophagus, or, more usually, as retro-stenal, retro-clavicular, and endo-thoracic goitre. He describes the casuistics of the clinic of Billroth, and cases in literature, and describes the different events produced by goitres, such as compression of the trachea, of the lungs, of the veins, and of the nerves, and closes with a description of the operation. *Michael.*

Fiske, Bryson.—*Preliminary Note on the Study of Exophthalmic Goitre.* "New York Med. Jour.," Dec. 14, 1889.

THE following are said to be pathognomonic accompanying symptoms :—
1. Diminished chest expansion, cough, shortness of breath, with

pharyngitis and rhinitis, peculiar catching of the breath at regular intervals when reading aloud.

2. Excessive thirst, sudden hunger, nausea, vomiting, diarrhoea coming on at irregular intervals.

3. Sweating, urticaria, eczema, petechiæ, local, or general pigmentation of the skin, *e.g.*, bronzing, alopecia, more or less general.

4. Leucorrhœa, menorrhagia.

5. Tremor of muscles, paresis, sudden loss of power in the limbs.

6. At first, depression of spirits, irritability, and apprehension; later, "desperate cheerfulness," mendacity, bad dreams, disturbed sleep, with sudden outcries.

A very good table of diagnostic points between exophthalmic goitre, and tuberculosis, and malaria:—

Treatment.—Elevated residence and avoidance of damp, and not near the sea. Regular exercise and bathing, with friction of the skin. Alcoholic and malt liquors to be avoided, together with sweets and fried food.

Drugs.—Iodides, nux vomica, carbozotate of ammonia, and strophanthus are all good in different cases. Iodides are contra-indicated when there is much respiratory difficulty. Arsenious acid night and morning, and bromides between meals. Quinine for indefinite periods has been advocated.

B. J. Baron.

Buckley (Manchester).—*Thyroidectomy*. "Brit. Med. Jour.," Nov. 30, 1889. Clin. Soc. of Manchester, Nov. 19, 1889.

EXHIBITION of a case of thyroidectomy for cystic bronchocele.

Hunter Mackenzie.

Harris, Thomas (Manchester).—*Acute Non-Tubercular Phthisis*. "Brit. Med. Jour.," Dec. 21, 1889. Manchester Med. Soc., Dec. 4, 1889.

THE case was unusual, in that the subject was a girl, aged eighteen, who had been subjected to the removal of the right lobe of an enlarged thyroid. The disease was non-tubercular broncho-pneumonia. *Hunter Mackenzie.*

Lloyd (Lambeth).—*Myxœdema*. "Brit. Med. Jour.," Dec. 14, 1889. Met. Counties Branch, S. London Dist. B.M.A., Dec. 4, 1889.

EXHIBITION of case, previously shown at the Clinical Society in 1881. No marked physical change has occurred, but now delusions of poisoning and occasional albuminuria are present. *Hunter Mackenzie.*

Manning, F. N.—*A Case of Sporadic Cretinism, with Remarks*. Trans. Inter-Col. Med. Congress of Australasia, 1889.

THE case is that of a girl, eighteen years of age, but the disease probably commenced before she was three years old. The case is very fully described, and the paper is illustrated with good photographs.

R. Norris Wolfenden.

Stirling.—*A Contribution to the Study of Sporadic Cretinism—Six Cases occurring in South Australia*. Trans. Inter-Col. Med. Congress of Australasia, 1889.

FIVE cases were children of the same family, born of parents apparently healthy. The symptoms commenced in all at about three years of age. The two families in which these cases occurred were large ones, being

eleven and ten respectively. There does not appear to have been any connection with syphilis. In all of the author's cases there was marked tumefaction, with tendency to hairiness over the region of the lower cervical and upper dorsal vertebræ. Probably these swellings were fatty like the supra-clavicular swellings. Excellent photographs illustrate the paper.

R. Norris Wolfenden.

Johnson.—*Two Cases of Persistent Thyroid Duct.* Path. Soc., "Lancet," May 10, 1890.

THE first case was that of a girl, aged fifteen years, who at the age of ten first noticed a small swelling in the front of the neck, which was opened and pus evacuated. It continued to discharge. When admitted, under the care of Mr. Beck, at University College Hospital, a rounded cord passed downwards from the hyoid bone to a sinus an inch and three-quarters above the sternum. The fibrous cord was dissected out; it lay beneath the deep fascia between the sterno-hyoid muscles, and at its upper end was firmly attached to the deep surface of the hyoid bone. Two months and a half later a small opening continued to discharge an occasional drop of mucus, and a fine probe could be passed upwards more than half an inch towards the base of the tongue. The fibrous cord contained a fine lumen in its whole length, and was lined with a thick layer of stratified epithelium having a distinct papillary arrangement. The second case was that of a female child, aged six years, in the middle line of whose neck a small swelling appeared at the age of four years. It soon burst, and continued to discharge pus. When admitted under Mr. Barker's care, a small depressed sinus was situated over the thyroid cartilage, and from it a fine rounded cord passed up to the hyoid bone. The treatment was the same as in the above case, and the wound healed rapidly. There was a fine lumen, but no epithelial lining could be demonstrated. In each case it was believed that the lower part of the thyro-hyoid duct had remained partially unobliterated, and an external opening had formed as the result of suppuration around the lower end of the tube. In the first case the lingual portion of the duct—viz., that above the hyoid bone—had only partially closed. Reference was made to Mr. Bland Sutton's classification of these cases, and also to a case described by Cusset in a monograph on Branchial Fistule, published in 1877. In a girl, aged five and a half, a fine canal lined with ciliated epithelium led from the hyoid bone upwards towards the base of the tongue, and opened externally below the hyoid as the result of suppuration.—MR. BRUCE CLARKE said that in one case under his care he had been obliged to operate four or five times; the lining membrane was removed, and epithelium was discovered in the *abbris*. Cases like these were spoken of by the French writers as enlargements of the bursa of Beclard, and perhaps some of them were of bursal nature.

R. Norris Wolfenden.

Roberts.—*A Case of Suppuration in Secondary Carcinoma of the Cervical Glands.* Philadelphia Academy of Surgery, April 7, 1890.

SOME time ago a man was brought to the author with a small ulcerated nodule on the left side of the upper lip and with a mass of enlarged glands on the left side of the neck below the angle of the jaw. The history,

which was rather indefinite, was that about a year or two previous the man had received an injury near the mouth and that this had not healed, or if it had, there remained thickening and hardening. Nothing was done for this, and, later, enlargement of the glands of the neck appeared. Two surgeons advised removal of the glands, one regarding them as tubercular. The patient was admitted to St. Agnes's Hospital and carefully watched, anti-syphilitic treatment being tried during this time. In a short time, however, he left the hospital. A few weeks later it was evident that there would be suppuration in the tumour in the neck, the nodule on the lip remaining unchanged. Dr. Mears then incised the cervical swelling and scraped away a quantity of softened tissue and treated the man on general principles. Subsequently the glands increased in size, and it was decided to excise the tumour of the lip as a diagnostic measure. The subsequent history of the case is that the glands above the clavicle began to enlarge and the side of the neck presented the appearance commonly seen in secondary glandular involvement of carcinoma of the lip. The patient has since died with swelling and tumefaction of the front and side of the neck.

Dr. ROBERTS thought that the clinical history clearly proved that this was a case of epithelioma of the lip, and that the suppuration occurred in the glands secondarily involved. Such a complication is rather unusual, and may, perhaps, have been due to the fact that these glands had been the seat of tubercular disease in early life: the irritation of the epithelioma lighting up the old trouble and leading to suppuration.

Dr. O. H. ALLIS, said that he had seen one case in which suppuration occurred in carcinoma of the cervical glands, but in that case the disease was primary.

Dr. DE FOREST WILLARD said that some six years ago a careful surgeon had removed an epithelioma of the lip. A year later the glands in the submaxillary region supplicated, and discharged a considerable quantity of creamy pus. The patient finally died from these secondary growths involving the submaxillary and cervical glands. He saw no reason why the irritation of an invading growth, like that of secondary deposit, should not set up an inflammation in the glands which would result in true suppuration. Such pus formation is not the same as cancerous suppuration; it is a simple inflammation set up by the irritation, and may, perhaps, involve parts of the gland which are not even the seat of cancerous deposit.

R. Norris Wolfenden.

SOCIETY MEETING.

New York Academy of Medicine: Section of Laryngology.

MEETING, OCTOBER 2, 1889.

Dr. CLARENCE C. RICE developed his presidential address on "A year's work on the Section."

Dr. BILLINGS showed a patient, forty-five years old, who had a large growth in the larynx, the structure of which was not known. He had

administered fifteen grain doses of potassium iodide with an indefinite syphilitic history, but with no good result.

Dr. W. K. SIMPSON reported the case of a foreign body in the right bronchus, the stump of a tooth having been inhaled during its extraction. The patient became extremely ill with pain in the chest and cough, and when at the point of death expectorated the tooth enveloped in blood and mucus.

Dr. C. H. KNIGHT read a paper, entitled, "A tooth plate in the laryngo-pharynx (?) for sixteen days."

The tooth-plate appears to have got into the throat at the time of a severe labour; the voice was lost, and there was some dyspnoea soon after the confinement, and the patient became aware of something slipping up and down in the throat, and it was extracted by her medical attendant. She then came to the throat clinic, and was found to be suffering from symptoms like those of perichondritis, the left arytenoid being much swollen, as also was the left ventricular band, the left vocal cord being concealed, and the chink of the glottis was so small as to suggest the necessity of intubation. The case improved very much as regards the swelling on the left side of the larynx, but the posterior third of each vocal cord looked as if it had been removed, and the voice did not clear up owing to the gap left between these notched portions of the cords on phonation. The foreign body that had caused this condition was a hard rubber plate with the fragment of its single tooth still attached. The treatment consisted in soothing inhalations, tonics, and cold compresses after the plate had been extracted, but the breath remained offensive, and suggested possible further complications of a necrotic character.

Dr. S. D. POWELL deprecated the usual plan of inverting a child who is known to have a foreign body in the air passages as spasm and death may be set up. He approves of the use of strong solutions of cocaine to quiet spasm, and then using forceps. Tracheotomy and laryngotomy may be necessary. The chairman related particulars of a case, where he was called into the country to remove a foreign body from the throat, and found that a practitioner had been trying to remove the epiglottis, but had not been so successful as he wished.

B. J. Baron.

MEETING, NOVEMBER 26, 1889.

Dr. J. H. BILLINGS referred to a case in which tracheotomy had been necessary on account of syphilitic stenosis; after the operation large doses of potassium iodide had been of great use.

Dr. SHERWELL reported a case of papilloma of the vocal cord, in which insufflation of salicylic acid and sugar of milk seemed to render the tumour softer. Tracheotomy had to be performed, and then the tumour was removed by thyrotomy, and was found to be one cubic inch in bulk.

Dr. GLEITSMANN showed a new inhaler, and

Drs. ROBINSON and KITCHEN called attention to the necessity for care in going out of doors after using a warm inhalation.

Dr. HOLBROOK CURTIS read a paper on the indiscriminate use of cocaine. He considers that a hypertrophy of the nasal mucous membrane may take place by over-stimulation and contraction of the erectile

plexus, giving place eventually to permanent dilatation due to vaso-motor paralysis. Toleration of the drug increases with use. He described the "cocaine heart," the symptoms of which are a feeling of fullness in the præcordial region on rising in the morning, flashes of pain and consciousness of the possession of a heart. Following this, palpitation and feeble action. Restlessness, prostration, mental dejection and a sallow complexion are also symptoms.

Out of five hundred cases he finds that three grains of the drug put into the nostril and left there for ten minutes cause faintness in one hundred patients.

Dr. KOLLER, the discoverer of the anæsthetic properties of the drug, had never given it into the hands of patients. He does not use a solution stronger than five per cent. for the nose, several applications of this solution being better than one application of a twenty per cent. solution. For plastic or skin operations he uses a two per cent. solution. In the case of an eminent professional man in Vienna, habitual cocaine poisoning shows itself by the hallucination that all over the skin are pimples from which little animals creep out.

Dr. ASCH uses ten per cent. with no harmful results.

The PRESIDENT and Dr. ROBINSON agreed with Dr. Asch.

G. H. FOX reported a case of lupus erythematosus of the face and oral cavity, and

Dr. SHERWELL presented a girl, aged fifteen, suffering from aphonia and pain in the throat. The tonsils were infiltrated and the same condition existed in the pharynx. Left vocal cord paretic, the ventricular band on that side being swollen and infiltrated, and presenting a worm-eaten appearance. The left side got better and then the right side was attacked. The pharynx and hard palate are scarred.

B. J. Baron.

REVIEW.

Transactions of the Eleventh Annual Meeting of the American Laryngological Association. Washington, 1889. Appleton and Co., New York, 1890.

WE have received this volume, which we are pleased to note gives internal evidence of the vitality of this honourable Association. A great number of very valuable papers are contained in this volume, which it would be impossible to mention in a fitting manner in a brief review of this nature. Moreover nearly all of them have already been abstracted into this Journal as they have appeared in the American Medical Journals. We note with pleasure that our colleague, Dr. J. N. Mackenzie, is nominated for the current presidency of the Association, Drs. Holden and Bean being chosen vice-presidents, Dr. C. H. Knight, secretary and treasurer, Dr. T. K. French, librarian, and Dr. Bryson Delavan, member of Council. Dr. Harrison Allen has been elected representative to the Congress of American Physicians and Surgeons. It has been decided to transfer the library of the Association to the Surgeon-General's office.

NEW PREPARATIONS.

Pumiline Liniment—Pumiline Ointment (G. and G. Stern).

THE pumiline preparations of Messrs. Stern have achieved a high reputation for their purity. We have previously examined and been enabled to speak with high praise of their pumilio as an inhalant. We can also speak with commendation of these two new preparations. The pumiline liniment is a preparation of the essence with olive oil and a suitable proportion of methylated chloroform. We have no doubt that it will be found a useful and agreeable external application for muscular and rheumatic pains.

Pumiline ointment is made up with lanoline as a basis, and may be safely recommended as an elegant application in chafings and excoriations of the skin, to relieve the itching of some skin affections, and for the relief of the pain and swelling accompanying insect bites. It is, beyond its medicinal virtues, a toilet requisite of high merit.

Listerine (Lambert Pharmacal Co.).

“ ‘ LISTERINE ’ is the essential antiseptic constituent of thyme, eucalyptus, baptisia, gaultheria, and mentha arvensis in combination. Each *fluid drachm* also contains *two* grains of *refined* and *purified* benzo-boracic acid.”

The experiments made by Dr. Deems upon its behaviour in regard to micro-organisms proved it to be “ a powerful and trustworthy antiseptic agent.” Thus a twenty-five per cent. solution prevented the development of bacteria and fungi in urine, a thirty-three per cent. solution prevented the decomposition of hay infusion, and a fifty per cent. solution arrested the process in hay infusion after development. It was found that up to ten per cent. listerine prevented putrefaction in animal tissues, and in tissues dipped in it (full strength) no putrefaction could occur. The preparation, though new in this country, at least so far as experience in its use goes, has for long been a favourite medium for local applications and dressing of wounds, and general surgical use, in America, where it has received commendation from many eminent surgeons. It possesses strong aseptic qualities, in the sense that it prevents, rather than destroys, fermentation. Its germicidal properties are probably somewhat less than a solution of carbolic acid of one in twenty, but its constitution and properties render it preferable to carbolic acid for surgical applications.

It is particularly well adapted for use in the throat or nasal cavities. Thus Seiler states that it at once destroys the stench of ozæna when employed as a spray to the nose (diluted one-half with water), substituting the pleasant odour of thyme, and he directs it to be used by the patient after preliminary cleansing with bicarbonate of soda. He remarked also that it exerts a curative action upon the atrophic nasal mucous membrane. As an application for purulent otitis it is probably unrivalled. Leferts speaks highly of its properties in the treatment of nasal catarrhs, and one great advantage of this preparation is, that it can be prescribed for sprays in combination with astringents, being substituted in part for the water

(in the proportion of one in three). We have used it very largely in the treatment of various throat and nasal affections, and can speak very highly of its beneficial results. It is an excellent deodoriser for ozæna, but requires to be combined with soda in order to obtain the dissolution of dry hard crusts. We have found that in some cases a solution of strength of thirty per cent. produces considerable pain in the nose, and it should, therefore, first be employed in weaker solutions. Listerine is a very valuable preparation, and will, when better known, no doubt become as favourite an antiseptic agent in this country as it has already become in America, where it is very extensively employed in general surgery.

NOTE.

A RECENT number of the "Philadelphia Times and Register" has the following comments upon an article which recently appeared in this Journal upon the connection of the Nose and Asthma.

"THE NOSE AND ASTHMA."

"Under this title an interesting article appears in the March number of the 'JOURNAL OF LARYNGOLOGY AND RHINOLOGY.' The nasal organ has of late years pushed itself into a position of undue prominence.

"Epilepsy, convulsions, vertigo, chorea, asthma, goitre, exophthalmic goitre, hemiparesis, hay fever, various diseased states of the eyes and ears, retarded mental development, melancholia, "irritation of the gastro-intestinal, utero-ovarian, and genito-urinary tracts," and other conditions have been considered to be originated or connected in some way with the nose."

"And as the mechanical ability of our nasal specialists increases, and they learn to handle with still more celerity and dexterity the knife, saw, chisel and galvano-cautery, it may be that they will cure dyspepsia and warts by burning off the Schneiderian membrane or razing to the foundations the turbinated bones.

"This new craze of blaming every misfortune on the nose has about reached its limit; even the rhinological specialists—some of them, at least—are beginning to acknowledge that the world does not revolve about one's prophecies, and that there are some maladies—astigmatism and cramps, for instance—in which certain other organs may exert a slight causative action.

"At any rate we advise them to confine the major part of their mining operations to men only, since the test of years has fully proved to the satisfaction of every self-respecting gynecologist that all those miseries mentioned above, along with the remainder of the catalogue, depend in women solely on perversities of the uterus and ovaries, complicated, perhaps, with an occasional kink in the round ligaments.

"The author of this article admits that the pendulum is now swinging back to its proper place, and that the nose is being stripped of some of its ephemeral dignities.

"With regard to asthma, there are doubtless some instances in which it can be traced directly to the nose, and in which proper treatment of that organ will be productive either of a cure, or of at least much benefit; but there are many other cases which are evidently either of purely central origin, or at any rate due to a cause utterly unknown to us, and these cases even the substitution of a wax nose would not cure.

"Let our intra-nasal surgeons tread softly and gently, then, along the floor of our nares, and handle with gloves, so to speak, the walls and roof, composed as they are of most quaint and ingeniously carved scrolls, and hung with a membrane which rivals in subtleness of warp and woof and in intricacy of figure any tapestry the deft hand of mediæval high-born dame ever fashioned."—E. B. S.

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The Editors do not hold themselves responsible for opinions expressed by contributors.

ON A CLASSIFICATION OF INTRA-NASAL AND
NASO-PHARYNGEAL DISEASES.¹

“Classification concentrates and indexes our knowledge. In every science, therefore, the classification of the facts of the science is of primary importance. In medicine, perhaps, more than in any other, a classification is needed, because of the vast number of facts, and of their multifarious relations to each other. Without it the study of medicine would be almost a chaos.

* * * * *

“But the law of division of labour operates in the practice of medicine as in all other arts, so that there is a practice of medicine which is a special department of medicine in general, and which requires, like other specialities, its own appropriate nosology.”—*Professor Laycock*, 1864.

By LENNOX BROWNE, F.R.C.S.Ed.

Senior Surgeon to the Central London Throat and Ear Hospital, etc., etc.

To quote from the preface to the recently published third edition of my book on “Diseases of the Throat and Nose,” “opinion is each day becoming “more indisputable that in the condition of the nasal fossæ, which constitute the first avenues of the natural breathway, is to be found the key “to a right understanding and successful treatment of the majority of “faucial, pharyngeal, and laryngeal diseases. The chief feature of this “edition is therefore fitly emphasized by the expansion of that portion of “the volume which treats of intra-nasal and naso-pharyngeal maladies ;” and, it may be added, on the insistence of systematic examination of the intra-nasal region in every case of throat disease, whether faucial or laryngeal, that presents itself to the practitioner—a step which may appear of obvious necessity and routine to the younger school of specialists, but one which was neither practised nor enjoined in the earlier days of laryngology, and is but too often neglected even now.

In preparing the Nasal section of my work for publication I was struck by the great want of a scientific classification of nasal diseases in all

¹ Read before the British Laryngological and Rhinological Association, June 13, 1890.

the writings of my predecessors and contemporaries, and, on attempting to supply it, by the many difficulties which surround its achievement.

While, therefore, I may speak critically of the arrangements adopted by others, I do not presume to put forward my own as by any means perfect, nor, indeed, do I hope to effect more than by attracting attention to the subject, to stimulate to the attainment of a more general unanimity of nomenclature. I can hardly suppose that further justification for some such scheme is required, because in the preparation of any subject, whether poem, drama, or picture, a carefully considered plot, scenario or composition is essential, and unless the *leit motif* be carefully indicated and preserved, the work loses at once in harmony and comprehension.

The necessity for some such "plan of campaign" in the treatment of this special class of diseases is a direct outcome of the advance of our knowledge, for as Laycock, whose wise words I have chosen as the motto to this paper, has further well said, a "classification should be suggestive of " new ideas and new relations. To this end, in constructing a nosology, " regard should be had to our methods of research, so that each new fact " may not only have its proper place, but exercise its proper influence on " others. Besides, medicine is so imperfect and so rapidly progressive that " unless a classification provide for this we may continually destroy and " reconstruct our systems, and thus materially add to our labour."

It must, therefore, be clearly understood that the classification now offered is, in point of fact, nothing more than such a preliminary ground plan of the treatment in detail of the separate diseases tabulated—the arrangement, in fact, which I have adopted in my latest edition.

As an appendix, therefore, to this suggested scheme of Nasal diseases, I propose to indicate a few moot points, more or less arising out of it, which require to be settled before we can reach within measurable distance of the desirable goal of uniformity at which I am striving.

In the first proofs of the preface to which I have alluded, I had ventured to prophesy that so great was the importance of diseases of the nose in causative relation to those of the throat, that the title of the work of the near future would give priority to the former. Before these words could be published, the forecast had been verified by the appearance last winter of the first part of Bosworth's second edition of " Diseases of the Throat and Nose," published in 1881, and now entitled " Diseases of the Nose and Throat." This first part constitutes a splendid volume of 670 royal octavo pages, and is devoted entirely to a consideration of diseases of the nose and naso-pharynx, which, it is not too much to say, could hardly be excelled, whether viewed from the philosophical or the practical aspect. His second volume, not yet published, will embrace diseases of the throat proper, the larynx and trachea.

And here, as prefatory to consideration of the classification of diseases of the nasal fossæ and naso-pharynx, it would be well to agree that we ought, both on developmental and morphological grounds, to separate the nose entirely from the naso-pharynx, sharply defining the limits of the former by an imaginary plane through the posterior border of the vomer, and in description of disease we should further divide, as Bosworth proposes, the pharynx into at least two regions—the naso-

pharyngeal and the oro-pharyngeal—a division which, if not exactly scientific, is a decidedly convenient one from the clinical standpoint, since the first portion is occupied mainly with the functions of respiration, the second with that of deglutition. The circumstances in which the naso-pharynx takes part in the act of swallowing, or the oro-pharynx in that of respiration, are almost entirely adventitious. Their connection with phonation and articulation is more purely physiological, and is of almost mutual importance.

If any further argument were required in favour of such a separation of the nasal fossæ proper from the naso-pharynx, one only requires to be reminded that the accessory cavities of the nose, which represent *in toto* a far larger surface area than those of the nasal choanæ themselves, and the majority of the diseases of which can only be diagnosed and treated intra-nasally, have been almost entirely neglected by even eminent authors—Cohen, for example, limiting their consideration to affections of the frontal sinus, and Morell Mackenzie omitting them altogether. Almost all writers, however, with the exception of the Americans, devote considerable space to diseases of the naso-pharynx as supplementary to the nose, with which, as I have said, it has—morphologically speaking—far less concern than with the throat. To this charge I must, indeed, myself plead guilty in my later editions, though in the first I made the naso-pharynx directly follow consideration of the pharynx proper. My only excuse is that, for the sake of convenience, I have somewhat unthinkingly followed the herd.

The boundary line of division of the naso-pharyngeal regions might appropriately be fixed superiorly at the usual commencement of the pharynx, namely, at the basilar process of the occipital bone, and terminating at the lower limit of the insertion of the superior constrictor into the pharyngeal aponeurosis—that is, on a line level with the roof of the palate and the floor of the nose. The oro-pharynx should constitute that portion which we can control by visual inspection of the mouth—that is, from the upper level of the soft palate on full contraction, to that of the root of the tongue and the upper aperture of the laryngeal vestibule.

It would be a fruitless and withal an ungracious task to criticise at length the various arrangements of intra-nasal diseases of each separate author; some—for example, that of Cohen as far as it went, when he wrote in 1879, of Morell Mackenzie, and of Schech—show a gradual evolution in the right direction, though with each one could easily find defects which would probably be first acknowledged by the authors themselves. The necessity for the task which I have imposed on myself cannot, however, better be exemplified than by quotation of the arrangement adopted in 1875 by Spencer Watson, one of the earliest to attempt a systematic treatise, and a most successful attempt it was, and by Greville Macdonald, who is the latest, and whose work dated in March last has actually appeared only within the last week or two.

Watson's first section on disease, although nominally confined to "non-ulcerative affections of the mucous membrane of the nasal fossæ," included subjects so nearly allied to the ulcerative state as strumous and syphilitic coryza, so inappropriate, both on grounds of site and pathological

character as naso-palatine gland disease, and adenoid vegetations of the naso-pharyngeal cavity, and so various as epistaxis, cysts, rhinoliths, and gelatinous polypi. As a consequence we find several of these subjects treated of a second time under other sections in the same volume.

Macdonald does indeed adopt a classification of catarrhal rhinitis, to which I shall presently return, but as regards nasal diseases generally he so marshals his forces, that he is obliged to bring up the rear with a final chapter—which to use the exact sequence of his own derangement—includes diseases so widely separated from each other and so inconsequent as “epistaxis, post-nasal catarrh, anosmia, and parosmia, foreign bodies in the nose, rhinoliths and nasal calculi, insects in the nose, collapse of the alæ, and congenital malformations of the nasal fossæ.”

CLASSIFICATION.

The **black type** is used simply to represent those diseases which are of more common occurrence and of greatest importance.

(a) NASAL CAVITIES.

I. Morbid conditions of the mucous membrane.	Acute Rhinitis.	<ul style="list-style-type: none"> a. Simple, or non-specific. b. Specific—usually purulent—(in fevers, diphtheria, syphilis, gonorrhœa, glanders, etc.) c. Neurotic—“hay-fever,” or <i>periodic hyperæsthetic rhinitis</i>, and pseudo hay-fever. 	
		<ul style="list-style-type: none"> a. Simple. b. Hypertrophic <ul style="list-style-type: none"> Simple. Specific (? Rhinoscleroma). c. Atrophic <ul style="list-style-type: none"> Simple. Specific (struma, syphilis, tubercle, lupus lepra). d. Rhinitis Caseosa. 	
II. Morbid conditions of the osteo-cartilaginous framework and Septum.	Hæmatoma.		
	Abscess.		
	Perforations.	<ul style="list-style-type: none"> Non-specific. Specific <ul style="list-style-type: none"> Fever. Syphilis. Lupus. Lepra. 	
	Narrowing.		
	Deviations and Deformities.	<ul style="list-style-type: none"> a. Developmental, etc. b. Traumatic. 	
III. New growths (whether of mucous membrane, bone, or cartilage).	Hypertrophies.	<ul style="list-style-type: none"> a. Cartilaginous. b. Osteo-cartilaginous. 	
	Spurs.		
	Necrosis and Caries.		
	Synostosis.		
	Non-malignant (Polypi)	<ul style="list-style-type: none"> Mucous, myxoma. Myxo-fibroma. Fibroma. Cystoma. Papilloma. Enchondroma. Osteoma. Exostosis. Sarcoma. Carcinoma. 	
IV. Epistaxis.	Malignant		
V. Neuroses	Of Olfactory Nerve	<ul style="list-style-type: none"> Anosmia. Parosmia, etc. 	
	Of Fifth Nerve	<ul style="list-style-type: none"> Anæsthesia. Hyperæsthesia. 	
	Of Facial Nerve	<ul style="list-style-type: none"> Paresis of Alæ. 	
VI. Foreign Bodies.	Physical:—	<ul style="list-style-type: none"> Rhinoliths, etc. Biological:—Larvæ, etc. 	
(b) ACCESSORY CAVITIES, including	Antrum.		
	Frontal Sinuses.	<ul style="list-style-type: none"> Catarrh. Empyema. New Growths, etc. 	
(c) NASO-PHARYNGEAL CAVITY.	Ethmoidal Sinuses.		
	Sphenoidal Sinuses.		
	Post Nasal Catarrh.—	<ul style="list-style-type: none"> Bursitis. Hypertrophy of Pharyngeal Tonsil.—Adenoids. New Growths.—Fibromata, etc. 	

Bosworth's arrangements of the various diseases is by far the most consequent of any writer, much more so, indeed, than is promised by his opening chapters, for, commencing with a description of the methods of examining the upper air-passages, his second chapter is occupied by consideration of methods of treating diseases in that region by means of instruments; and then follow five others, viz.: Chapter III., on the anatomy and physiology of mucous membrane generally; Chapter IV., on taking cold; Chapter V., on the anatomy of the nose; Chapter VI., on its physiology; and VII., on general considerations concerning catarrhal diseases. It seems almost superfluous to point out that, as a matter of sequence, Chapter IV. should have been incorporated with Chapter VII., and methods of examination and instrumental treatment should have followed anatomical and general considerations of etiology.

It is quite impossible, in our present knowledge, or at least within reasonable bounds, to propound any scheme of nasal diseases on either purely anatomical or purely pathological grounds, and I have therefore endeavoured to combine the two with a view of making one that is practical and clinical.

Referring now to the accompanying table, I first adopt, as three main divisions, the nasal cavities proper, the accessory cavities, and the nasopharyngeal cavity. To this I apprehend that there will be no opposition. Nor do I expect other than general agreement with the subdivisions of morbid conditions of the mucous membrane, of the frame-work, of new growths, of epistaxis, of neuroses, and of foreign bodies, but I confess to some misgivings as to complete acceptance of the order I have adopted. As an actual scientific arrangement, morbid conditions of the frame-work might be held to precede those of the mucous membrane, but against this it may be pleaded that, while Bosworth claims that deviations and spurs of the septum are always in causative relationship to hypertrophic inflammations of the mucous membrane, others—Schech for example—are of opinion that septal overgrowth may be seen to actually arise and develop during the course of a chronic inflammation of the mucous membrane of the nasal fossæ.

Again, I had some doubt as to including rhinoscleroma under the heading of hypertrophic rhinitis, and I might, on the authority of Hebra and Kaposi, have treated it as a neoplasm; Billroth and others, however, have considered it as an inflammatory process. Furthermore, though I have no doubt as to its being hypertrophic in its origin, the shrivelling and shrinking process that characterises the later stages appeared to suggest that the atrophic changes of this specific overgrowth might justify my belief in a similar metamorphosis of the non-specific and more ordinary hypertrophic rhinitis.

I had some hesitation also in deciding where to place epistaxis, and in giving it a separate heading I was guided by the dictum of Sir Thomas Watson that nose bleeding "is sometimes a remedy, sometimes a warning, sometimes really a disease in itself."

To cite one more item in my table, it appeared better for clinical purposes to separate the neuroses of special sense from those of a reflex and symptomatic character, and to consider the connection of the latter

with rhinitis in that portion of the text which is devoted to inflammations of the mucous membrane. It has been objected that hay-fever is not an acute rhinitis, but purely a neurosis. Such an objection I cannot allow, for of the acuteness of the rhinitis there can be no doubt, while the underlying neurosis is but of the nature of a general constitutional dyscrasia. Anosmia, again, may present itself simply as a symptom of a mechanical obstruction to the olfactory region, but when occurring as an essential disease loss of smell is clearly a neurosis, and must be classed as such with parosmia, which is likewise a neurotic perversion of the same special sense. Neuroses, other than reflex, which depend on lesions of the fifth or of the facial nerves, are rare, but they require to be noted in a classification. The term *ozena* does not appear in my classification, simply because it is but a symptom of various diseased states.

These, however, and other points can be well settled by a preliminary consideration of the special anatomy, physiology, etiology, pathology and symptomatology, a prefatory task, which is absolutely necessary in relation to diseases of the nose. It is in pursuance of such an object that good work still remains to be done, and one which, with an experience of twenty-five years, I may be permitted to commend to the attention of the younger Fellows of this Association. It is only by acknowledgment of the complex character of the physiology of the nose that we can obtain a grasp of the many-sided aspects in which departures from health may present themselves. But let me express the hope that we shall all strive to dispel some of the theories no longer tenable rather than create—as is the fashion—new fads in their place. I would especially caution against over classification, a fault sometimes induced by an excess of conscientiousness which prompts one to honestly consider an exception as the beginning of a new rule, in others by that eager seeking after pseudo fame by discovery of a new law, which may, however, instead of ensuring for its parent posthumous celebrity, only result in holding him up to contemporary ridicule. The best way to overcome such a tendency is to thoroughly study the literature of a subject not in one language but in all, and not only what is recent but what has been written before the present technical methods were in vogue.

Amongst the questions that present themselves for our consideration when endeavouring to classify intra-nasal maladies are the following :—

1. Is Hypertrophic Rhinitis, as asserted by Bosworth, always associated with septal spurs and deflections, and what is their etiological relation? On this head statistics have been taken for me during many months, and I have already obtained enough information to warrant me in saying that while the association is much more frequent than has been generally supposed hitherto, it is by no means constant, and does not exist in more than three-fourths of the cases which present themselves. In a still smaller proportion are these spurs, in my judgment and that of my colleagues, with whom it is at once my privilege and delight to work, of what one may call surgical importance, or at least of more importance than to call for a slight cauterisation, or resolvent inunction to effect their reduction to a harmless and negative position.

2. As an instance of over classification, exception might be taken to Macdonald's recent classification of catarrhal rhinitis into—

- “(i.) That associated with vascular tumefaction of the erectile tissue,
“sometimes erroneously styled hypertrophic ;
- “(ii.) That with vascular collapse of the erectile tissue, not infrequently mistaken for atrophic rhinitis ; and
- “(iii.) That with true hypertrophy and œdema of the erectile tissue.”

En passant one might ask is Macdonald justified in agreeing with John Nolan Mackenzie, and the still earlier writings of Morgagni, Kohlrausch, and Bigelow, that the inferior turbinated body contains true erectile tissue, a circumstance denied by Bosworth? I believe he is, and that the author last named is about the only dissident from such a view. But to return to the question just mooted, I cannot altogether accept Macdonald's subdivisions of chronic catarrhal rhinitis, for we have his own admission on page 58 of his book that rhinitis associated with vascular tumefaction of the erectile tissue is but a preliminary towards true hypertrophy¹, and, therefore, I would contend but an earlier stage of one and the same affection. On the other hand, I ask you to consider whether rhinitis associated with vascular collapse is anything more than an early stage of an atrophic rhinitis.

3. A question allied to the foregoing is whether atrophic rhinitis is ever a sequel—I grant it is much less frequently so than was formerly admitted—of hypertrophic rhinitis, or whether, as asserted by Bosworth, it is an entirely separate disease? For my own part I make no doubt that I have often seen concurrent atrophy and hypertrophy in the two nostrils. Quite recently, since my attention was re-awakened to the subject by the remarks of Bosworth, I have had a case at my hospital *clinique*, which I have demonstrated to my colleagues and pupils, in which atrophy with glazed membrane and incrustations was going on in the right nostril as the result of a traumatic septal displacement, while in the left there was very considerable compensatory hypertrophy. Is the absence of vibrissæ, as has been suggested, any stronger proof that the disease has not originated as a catarrhal inflammation, than that the absence of cilæ in the bronchi of the subject of chronic bronchitis should be claimed to negative an original state of acute inflammation? Are there not indeed varieties of atrophic rhinitis? On this point let me remind you that atrophic rhinitis has not inaptly been likened to cirrhosis of the liver, and it appears to me that the analogy may be strengthened by application of the pathology of the hepatic prototype to atrophic rhinitis. Thus we *may* have vascular engorgement leading to atrophy ; or engorgement leading to actual hypertrophy and ending in atrophy ; or we may, without previous engorgement, have hypertrophy leading to atrophy ; and, finally, we may have a primary sclerosis. None of these, however, require separate classification, being, as in the case of the liver, simply varieties of a well defined disease. In this connection, also, we may obtain further statistical information of the constitutional dyscrasiæ, predisposing to atrophic rhinitis, anæmia, struma, syphilis, etc. What is its relation to alcoholism for example? In what

¹ The effect of cocaine in reducing the tumefactions has been advanced as a diagnostic test ; but its value is doubtful, for I have yet to see the case, however advanced, of hypertrophic rhinitis in which very evident temporary diminution of the swelling does not result from cocainization.

degree is it influenced by disorder of the portal circulation, and what is the importance as an etiological factor of sexual irritation, delayed menstruation, amenorrhœa, menorrhagia, and other uterine floodings? Is there any constancy or unity of bacterial association? Is it ever the direct sequence of an exanthem, or of insanitary surroundings? Further statistics and facts are also required on the peculiar physiognomy of the subjects of atrophic rhinitis. Is there always an upturned and abnormally patent nostril? Lastly, is it ever curable?

Answers to all these points and to many others in rhinal pathology are required before we can hope to have any uniformity of classification, and this circumstance is at once an excuse for the imperfections of the one I now offer tentatively for your criticism, as well as a justification for my proposing it at all as a subject for your deliberation.

A CASE OF FIBRO-MUCOUS POLYPUS OF THE NASO-PHARYNX.

By CHARLES WARDEN, M.D.,

Senior Surgeon, Birmingham Ear and Throat Hospital.

WILLIAM BURTON, about twelve, residing in Birmingham, of anæmic temperament and delicate constitution, came to me at the Birmingham Ear and Throat Hospital, about two years ago, suffering from mucous polypi in both nostrils, and a small growth lying at the back and immediately behind the uvula, hanging down from the roof of the soft palate, from its posterior and upper surface, which appeared of a much denser structure, tough, smooth, and of pyramidal shape. His mother informed me that his throat had been affected three years, following an attack of scarlet fever; after recovery from the fever, his mouth was superficially ulcerated; he talked thickly, complained of his throat, some dysphagia and was generally out of health; she took him to the Children's Hospital, and the doctor (a lady) told her that there was a growth in the throat, which was corroborated by others.

The mucous polypi were removed from the nostrils, and after a time I operated upon the fibrous growth by the electric-cautery, but the wire loop giving way, recourse was had to the curved blunt-pointed scissors, and there was very little hæmorrhage, the boy being convalescent in a few days, and no trace of the tumour could be seen. About a year ago, the mother perceived again the substance in the nostrils, and brought him to me. On examination I found mucous polypi in both nares, and a re-appearance of the fibrous growth behind the uvula in the post-nasal space; the fibroma increased in size, and after endeavouring to rid the nares of the mucous polypi from time to time, under the impression that the growths were not connected, but (at length) detecting a small mucous appendage growing from the apex of the fibrous cone, I came to the conclusion that the nasal polypi were united to the fibrous growth. The

fibrous tumour was shaped like a pyramid, with apex downwards, and was attached to the upper and posterior surface of the soft palate, being about the size of a walnut; he never had any defect in hearing or tinnitus, but vertigo at times; was of a very excitable and nervous temperament; breathing was difficult, but no dysphagia, and unable to breathe through the nostrils, especially the left, in which the largest polypi existed, neither was he able to blow air through them; snores in his sleep with open mouth and has headache.

The first operation was on November 5, 1887 (under chloroform, of course); the second was delayed on account of his bad and unsatisfactory state of health, which improved under tonic treatment with iron, etc., etc.

On July 6, 1888, I again operated with the electric-cautery; unfortunately the wire again gave way by the extreme temperature of the battery, and again I had to fall back upon the use of the scissors, the growth being pulled well forward by hawk-claw forceps, completely turning the soft palate inside out, as it were, the line of attachment being distinctly marked, and the growth easily separated and cut through with the scissors. There was very little hæmorrhage comparatively, considering the broad base by which it was united with the soft palate, and he recovered from the effects of the operation and chloroform with very little vomiting, and a very small quantity of blood being mixed with the vomit. The tumour, on examination, was of a dense fibrous texture, smooth, pyramidal, and attached by broad base, as seen in the specimen, the apex downwards, with a small mucous polypus on apex of the cone, and under the microscope showed characteristic structure of fibrous tissue, the small appendage being distinctly mucous.

Fibromata of the soft palate are usually small and pedunculated, according to some authorities, and they occur most frequently on the posterior surface of the palate, are slow in growth, and the true fibrous polypus usually arises from the base of the skull, according to Cohen.

Nélaton asserted that fibrous naso-pharyngeal polypi never originate from the cervical vertebræ, as they were supposed to do in many instances, but were from the periosteum, which covers the inferior surface of the occipital and body of sphenoid. As to the cause of fibromata, it is in obscurity, and seems to be difficult to form an opinion upon. Some authors state that they are rare. In my own practice I have seen several, and it appears more common among the French than in this country.

The *pathology* of these tumours has been well considered by Panas, who has shown that the mucous membrane round the posterior nares, and in the immediate neighbourhood of these orifices, presents a kind of transitional form between the mucous membrane of the nasal fossæ and the dense, closely-adherent, fibro-mucous lining of the pharyngeal vault. Growths in these situations are composed, to a great extent, of the structural elements of the tissues from which they originate, and whilst a polypus springing from the pituitary membrane may be expected to be of mucous texture, one from the under surface of the basilar process is likely to be fibrous, and a tumour taking origin from the membrane round the posterior nares, where the fibrous and mucous elements are mingled, will probably present a corresponding fibro-mucous structure.

In this instance, in which the tumour had branches (mucous) extending both into the pharynx and into the nasal fossæ, the pharyngeal part is fibrous, with a small mucous polyp on its apex—the nasal offshoots being mucous in character.

On July 9, 1888, came to hospital, and no trace either of fibrous tumour or mucous polypus, either in pharynx or nares, to be seen, being also quite well in himself, very cheerful and happy.

July 26, 1888.—This patient came again to the hospital to-day, and I regret to have to report that another growth had made its appearance, vascular and suspicious in its nature, on the left side of posterior nasal space, and also more nasal polypi in left nostril. These I removed at once, but I fear the other growth is of a more serious character. The boy looks very anæmic, dusky in countenance, and presents the aspect of malignant disease. I have, therefore, decided to send him into the country for a month before performing any further operation upon him.

Although this may be another form of fibroma, or fibro-mucous polypus, I have grave suspicions that it may turn out a true sarcoma.

1889.—On his return to me after being a month in the country, I found him in a much better condition, although the growth had considerably increased in size. I again operated, and brought away this large mass of fibrous tissue, with some mucous polypi attached, and extending from it into and along the course of the left nostril. This seemed to thoroughly and completely bring away the entire growths, and since then he has had no return of it whatever, and I trust it is perfectly eradicated. I have carefully kept him under observation up to the present time, having seen him during the last month, and am pleased to be able to state that there is now not the slightest vestige to be seen.

ON THE USE OF THE DENTAL DRILL IN THE TREATMENT OF DEVIATIONS AND SPURS OF THE NASAL SEPTUM.

By ADOLF BRONNER, M.D.,

Surgeon to the Bradford Eye and Ear Hospital.

ON examining the interior of the nares by anterior and posterior rhinoscopy, we are struck by the large number of cases in which the septum narium is bent or thickened. Morell Mackenzie examined 2152 skulls, and found that in 1657 cases, or 77 per cent., there was a more or less unsymmetrical position of the septum. Zuckerkandl says that, out of 370 skulls, the septum was symmetrical in 123 cases and unsymmetrical in 140, and that it was irregularly thickened in 107 cases. He found that the septum was always symmetrical in the skulls of children under seven years of age. Loewenberg¹ found that the septum was perfectly straight in about 14 per cent. of the cases he had examined.

¹ "Anatomische Untersuchungen über die Verbiegung der Nasen-scheidewand": "Zeitschrift für Ohrenheilkunde," 13, p. 1.

The great importance of these deviations and hypertrophies, commonly called spurs, is that they, in many cases, impede the free passage of air, and thus prevent normal nasal respiration. They also give rise to reflex symptoms, such as asthma or frontal headache. They bring on diseases of the middle-ear and throat, and also prevent the introduction of instruments into the nostril, such as the snare for removing nasal polypi, the galvano-cautery, or the Eustachian catheter. The latter is, of course, very important in the treatment of catarrh of the middle-ear. We thus find that it is quite essential for aurists to be able to recognise and treat these abnormal conditions.

Many methods have been suggested for removing the spurs and deviations of the septum. I will, however, not go into all these details, but will, as briefly as possible, record the methods which I now adopt, in well-marked cases, in preference to all others.

I have had small trephines made of various sizes and lengths, similar to the trephine used for opening the mastoid-antrum, but with a smooth and cutting edge (made for me by Down Brothers). The trephine is attached to an ordinary dental engine. In operating on a spur, I paint the mucous membrane over the spur with a 20 per cent. solution of cocaine, and then inject five or six minims of the solution under the mucous membrane at several places with a Pravaz syringe. The external wall of the nostril is drawn outwards with a Jurasz or modified Loewenberg speculum. The engine is turned, and the trephine placed on the spur and pressed gently backwards, in a line parallel with the septum. The trephine cuts through the spur very readily, and little or no pressure is required. The operation is not nearly so painful as when an ordinary knife or saw is used. In cases of exostosis (which are very rare), I should use the ordinary trephine with a saw-edge. An anæsthetic is never necessary, except when the patient is extremely nervous. There is very little hæmorrhage—much less than when cocaine is not used. This fact seems to me to be of great importance, as it makes the operation much easier, and also shorter. After the operation I plug the nostril with cotton-wool, soaked in glycerine and iodol, and leave the plug in for five or six days. In speaking of the operations for spurs, I should like to contradict the assertion, which is to be found in most of the text-books, that you can easily remove the spur with the ordinary galvano-cautery. This is quite contrary to my experience. You can of course remove the thickened mucous membrane, but not a spur in the proper sense of the word.

In treating deviations of the septum, in which the deviating part is thickened (and this is very often the case), I apply the trephine in the same way as for the removal of a spur. Great care must however be taken not to perforate the septum. In cases of deviation in which there is no local thickening, I follow to a certain extent the suggestion of Hartmann.¹ After having injected cocaine, I make a U shaped incision through the mucous membrane on the convex part of the septum, cutting, as it were, round the deviation. The open end of the incision is directed backwards. I then detach the mucous membrane and perichondrium, and throw the flap backwards. The trephine is then applied to the anterior end of the

¹ "Deutsch, Medicinische Wochenschrift," No. 51, 1892.

wound, and pressed gently backwards and inwards, till it reaches the base of the flap. It is then withdrawn, and the detached piece of the septum cut off with the scissors or knife. The flap is drawn forward to cover the wound. A thin, flat piece of wood or metal is then pressed against the flap, and the nostril plugged with cotton-wool. The wood is then withdrawn or cut off. The plug is left in for several days, and then carefully withdrawn and renewed.

I also use the trephine, with cutting edge, in cases of synechiæ of the turbinated bones with the septum or floor of the nares.

I am perfectly well aware that the methods suggested are not entirely new or original, although they have never been fully described in any text-book or journal. The advantages which they seem to me to have over the methods generally adopted are, that an anæsthetic is never necessary; that the operation is practically painless; is over in a few seconds, and that it is attended with very little hæmorrhage or discomfort; and last, but not least, that the operations are attended with much better results than those obtained by other methods.

REPORTS OF MEETINGS.

British Laryngological and Rhinological Association.

DR. GORDON HOLMES, *Vice-President in the Chair.*

FRIDAY, JUNE 13, 1890.

MR. LENNOX BROWNE exhibited a series of photographs of a child, aged ten, whom he had shown at a previous meeting of the Association. The tumour then examined was thought by most members to be of sarcomatous nature. This had since been successfully removed, and the growth, which weighed eight and a half ounces, was shown, along with microscopical sections. The sections showed the tumour to be a fibro-cystic goitre, involving the left lobe and isthmus of the gland. He stated that this was the eleventh case in which he had effected the removal of a portion of the thyroid gland. All the patients had recovered, and in only one had recurrence taken place.

Mr. Lennox Browne also showed a microscopical section of an alveolar sarcoma of the tonsil and palate, which there was reason to believe had arisen as the direct sequel of an attack of diphtheria.

He further exhibited an ingenious saw, devised by Mr. Ward Cousins for nasal, and another for palatal, operations, the same handle serving for both saws.

DR. GORDON HOLMES showed a case, which he considered to be one of *lupus of the larynx and pharynx*. The patient was a very thin, anæmic-looking girl, eleven years of age. The affection dated from about nine months ago. She was at first under treatment at a hospital

for diseases of the chest, and had come under his care five months previously. There was at that time extensive ulceration of the soft palate, with a tendency to spread. The uvula had already been eaten away. The voice was almost aphonic, the larynx very much thickened, and the epiglottis presented a most peculiar appearance, being the seat of seven or eight large warts, not very prominent, but somewhat resembling the granulations met with in exaggerated instances of granular pharyngitis. There was no definite history of inherited syphilis. The patient was put on cod liver oil and ferruginous tonics, and was ordered vapour Origanum (Throat Hospital Pharmacopœia) and local applications of perchloride of iron. Curiously enough, the vapour Origanum seemed to have a specific effect on the ulceration, for when it was omitted for a week the ulceration got much worse, but on its resumption steady progress was effected, the ulceration healed, and the larynx became so much better that the patient discontinued her attendance at the hospital about three months ago. At present the larynx showed a good deal of thickening, but the characteristic ulceration was no longer visible.

Dr. Holmes also showed a patient, forty-eight years of age, with a *growth in the larynx* of six months' duration, in order to elicit an opinion as to its benignancy.

All the speakers agreed that only microscopic examination could clear up the question as to diagnosis, but Sir Morell Mackenzie pointed out that even this was not always decisive, as portions removed by intra-laryngeal operations might not contain any of the malignant elements of the growth, even if such existed.

Mr. MARK HOVELL showed a boy, aged three and a half years, from whom laryngeal growths were removed, and who when first seen was extremely hoarse and with dyspnoea so great that tracheotomy had to be performed. Owing to the dyspnoea he had been unable to examine the larynx at the time, so the patient was put under an anaesthetic and the forceps were used. This was done in all fourteen times, and after a period which extended over several months the patient had become so far trained and docile that he allowed the forceps to be introduced after using cocaine. The voice was ultimately completely restored and no trace of the growths was visible. The tracheotomy tube which had been inserted had been removed, and there was no trace of any recurrence on the vocal cords and ventricular bands.

Sir MORELL MACKENZIE said that all those who had operated on children well knew the difficulty there was in dealing with such cases. In these cases the operator had to trust to chance a little. He pointed out that it was one of the merits of the antero-posterior forceps that he introduced, that if passed in in the middle line there was but little risk of their seizing anything except an abnormal projection. He had operated freely in difficult cases on patients who were so nervous or so sensitive that it was impossible to see, and he had easily managed to bring away portions of the growth. They were all aware that with a child's mouth widely opened they could see the epiglottis, and it was possible to introduce the forceps without a mirror. He thought that the case brought

forward by Mr. Hovell was probably the youngest on record, and the greatest credit was due to the courage and endurance of both the surgeon and the patient.

Mr. HOVELL said they had found it best to have the child seated upright, and, by holding down the tongue, pass the sponge into the fauces as little as possible. The greatest difficulty was the collection of mucus which formed about the epiglottis, and he had remarked that the more the parts were sponged the more there was of it, and the greater the difficulty in seeing the larynx. In reply to the President, he said that he used the mirror in the usual way. He could see the epiglottis without a mirror, but he always used it before introducing the forceps. In reply to Dr. Stoker, he said that he did not try the head-down position.

Dr. STOKER observed that in a paper which he had read at a previous meeting he had ventured to recommend this method of intra-laryngeal operation, and he had since taken advantage of the opportunity in several operations to try how far it was practicable to see the inside of the larynx. He had not had any opportunity of removing any growth in this position, because his patients requiring such an operation had been adults, and cocaine was enough. At the same time he fully intended to operate in this position the next child patient who should come under his treatment.

Mr. LENNOX BROWNE said they must remember that it added very much to the difficulties if in operating on children they adopted another position than the one they were accustomed to in the adult. If the chin were well depressed and the tongue held well forward there was very little danger of any blood finding its way backwards. He had occasionally put the head well back when a little too much blood was running down the trachea. He usually, however, took the position of a child not under an anæsthetic. He alluded to a recommendation in regard to intubation that with the tongue out, those who were skilled in the use of the laryngological mirror would have the greatest ease in introducing the intubator by the aid of the mirror. It was curious that most operators did not use the mirror, but he was sure that it was better to do so.

Dr. MACINTYRE asked how long the child wore the tube?

Mr. HOVELL replied, "Ten months. It was introduced a fortnight after admission."

Dr. CROCKER said that his reason for asking was, that a short time ago, he had been on the point of operating for sudden œdema of the larynx. He had operated, and had found a number of polypi in the larynx, the patient being a boy, five years of age. He had subsequently removed the whole of the growths, and when, eighteen months later, he saw the patient again, he found signs of recurrence on the anterior extremity of the right vocal cord, not much, but quite sufficient. For eighteen months the air passages had been perfectly clear. He remarked that it was a very important thing to take out the tube in children as soon as possible. If left in too long, they might have the greatest difficulty in getting it out at all. It was difficult to say what the cause was, but he thought that once the trachea was clear, the duty of the surgeon was to remove the tube as promptly as he could. In many

cases, even without any thickening, there was a tendency on the part of the larynx to collapse, and he had been obliged to take patients into the hospital in order to take the tube out and wash it. This was very dangerous unless there was a surgeon in attendance to put the tube in again at an instant's notice.

Dr. STOKER showed two cases of "black tongue," the first being in a child, and the second in an adult. The latter was a woman over fifty years of age, who, two years before, had had a stroke of hemiplegia. The left vocal cord became completely paralysed, and remained so until about a month ago. There was an oval black patch in the centre of the tongue, which had since gradually disappeared. It presented the same general characteristics as the case he had shown some time ago before the Pathological Society.

The other case was that of a little child brought to him for some irritation of the throat, manifestly specific. She was treated by mercurial inunctions, and was getting better. When first seen, she had the well-marked oval patches on the centre of the tongue, which got sometimes larger and sometimes smaller. There was a sharp line of demarcation surrounding the edge of the patch where the filiform papillæ were elongated. It was seen under the microscope to be a general colouring of the scales covering the filiform papillæ.

Mr. LENNOX BROWNE read a paper upon *A Classification of Intra-Nasal and Naso-Pharyngeal Diseases*. (See p. 273.)

The PRESIDENT stated that the difficulty of classification was always very great, because there were several ways of looking at the question—pathological, etiological, clinical, etc.

Sir MORELL MACKENZIE said the classification was, on the whole, a very natural one, especially as to the general headings. He thought, however, that hay-fever ought to come under the second rather than the first category. Mr. Browne had given them chronic rhinitis as well as post-nasal catarrh, but he thought that they were associated. In hypertrophies of the nose they might have hypertrophy and atrophy at the same time. On the bony parts there might be a hypertrophic condition while the surrounding mucous membrane was atrophied. He agreed that in most cases of hay-fever this condition existed, *e.g.*, enlarged turbinated bones, especially towards the naso-pharynx, and an atrophied condition of the nasal mucous membrane.

Dr. BRONNER urged that the naso-pharynx belonged to the pharynx, and not to the nose. In connection with diseases of the pharynx ought to be considered diseases of the pharyngeal tonsil and of the mucous membrane. Post-nasal catarrh would thus come under the head of diseases of the mucous membrane. Bursitis belonged to diseases of the pharyngeal tonsil. He did not see how fibromata had anything to do with hypertrophies. He did not see where ozæna was brought in. He looked upon the disease as being a distinct form of atrophic rhinitis. He objected to the word "narrowing." In reference to No. 2, he thought that there ought to be separate divisions for the cartilaginous and the bony portions. Moreover, the septum ought to be divided into bony and cartilaginous.

Dr. DUNDAS GRANT said the great difficulty that presented itself to Mr. Browne, as to everyone, was what to do with that form of turgescence, the neurotic turgescence which they so often met with, and which they were very apt to classify as hypertrophic rhinitis. Was it to be called a disease of the nose, or was it to be called a nasal reflex, a sympathetic paresis, or what? There could but little doubt that it was a sort of neuro-vascular condition. He might also suggest that it would be well to find a place for it in the classification, but where to put it he hardly knew. He himself usually put it down as acute hypertrophic rhinitis, meaning by that the turgescence that went down under the influence of cocaine. He thought that it might be included under the head of neurotic, but certainly the term acute could hardly be applied to it. As regarded the second heading, *Morbid Conditions of the Osteo-Cartilaginous Framework and Septum*, he thought it was a happy idea, and he said the author had been most catholic in his classification, and, in his anxiety to include everything that had been done, he had even condescended to comprise necrosing ethmoiditis. Then, with regard to anosmia, he thought that they would agree that it was sometimes a neurosis in itself, but more often a symptom. In any revision of the classification that element would have to be kept in view, and, probably, under the heading No. 5 would be marked "essential anosmia." That would distinguish it from the anosmia which was the accidental sequence of a mechanical condition.

Sir MORELL MACKENZIE said he objected to all classifications, and, when absolutely necessary, they ought to be as simple as possible.

Dr. WARDEN read a paper on *Post Nasal Growths* (see p. 280).

Dr. STOKER said he had seen two cases resembling in some points the case mentioned by Dr. Warden. There were fibro-mucous polypi projecting into the naso-pharynx. Those cases were believed to be innocent, and they were operated upon. He had not heard what became of the first case, but the second subsequently developed carcinoma and died.

Dr. MATHISON suggested that instead of the electric or the cold snare that these growths were most easily removed by the finger or artificial nail, especially if not very large, thus saving a good deal of trouble. He had removed one measuring two and a half inches last year, and this week he had removed part of a similar one very successfully by that means.

Dr. BRONNER said that although sometimes very large the root might be small. As these growths often turned out to be malignant, he thought they ought always to cauterise on the site whence they sprang.

Dr. WARDEN said he used chromic acid after cutting off the growth. In his case the tumour had so broad a base that it would have been impossible to get it away in the ordinary way.

Dr. ADOLPH BRONNER read a paper on the *Use of the Dental Drill in the Treatment of Deviations and Spurs of the Nasal Septum*. He insisted on the large number of cases in which the septum was bent or thickened, the important feature of such abnormalities being their tendency to impede the passage of air, and thus prevent normal nasal respiration. Moreover, they sometimes gave rise to reflex symptoms, such

as asthma and frontal headache, and might induce diseases of the middle ear and throat. They also seriously interfered with the introduction of instruments. He showed a number of small trephines made of various sizes and lengths, similar to those used to open the mastoid cells and antrum, but with a smooth and cutting edge. He explained his *modus operandi*, and said that an anæsthetic was not necessary except when the patient was very nervous. The use of cocaine tended to prevent undue hæmorrhage. He denied that such "spurs" could be easily removed by the ordinary galvano-cautery. He pointed out that in treating deviations of the septum, it was important to avoid perforating the septum. He admitted that these methods were not new, though they had never before been fully described. The advantages were that the operation was practically painless, and only lasted a few seconds, and was attended with very little hæmorrhage or discomfort. Last, but not least, this method gave better results than those to be obtained by other methods.

Dr. STOKER said that in the nasal cavity he much preferred the saw. In applying a drill of this kind, one left a series of projecting angles, which had in turn to be cut off, even then not leaving a smooth surface when the spur was removed as with the saw. Without a smooth surface they were very apt to get hypertrophy of the mucous membrane growing over the cut surface. He thought these operations with the saw might easily be performed under the influence of cocaine, or if the patient was not courageous enough, it was easy to anæsthetise him in the sitting position, and to plug the naso-pharynx with sponges to catch any blood.

Dr. HUNT said that he was in favour of treating these diseases by the simplest methods, but he thought there was a still simpler plan of treating them and that was to leave them alone. He had seldom or never seen cases in which it was necessary to interfere with these deviations of the septum. In the immense majority of cases they occurred upon the cartilaginous septum. There it was true they interfered with the introduction of instruments, but that was the only reason for touching them. They never seriously interfered with the current of air. He, himself, had removed them in the way that Dr. Bronner said was not practicable, viz., by means of the electro-cautery, but he had only performed the operation a few times, and then in order to facilitate the removal of nasal polypi. His experience seemed to differ entirely from that of the younger men among rhinologists, who mostly thought it necessary to remove these spurs, in order to get rid of certain reflex symptoms, which were by no means familiar to him as occurring in this association.

Mr. LENNOX BROWNE differed from Dr. Hunt in regard to the importance of nasal spurs. He would ask him to examine the cases recorded in his book. He could not doubt that these deflections and spurs interfered to a material degree with the voice. Of course, if that were not recognised, they would not see that the spur had anything to do with it. It was only when one had operated on these abnormalities that one recognised how much improvement their removal would effect. As for deviations, he said he had seen some marvellous catheters which had been devised in order to turn the difficulty, but if they removed the obstruction these instruments would not be needed. He thought they

must admit that there were a number of cases which might be treated by the saw, but there were also a number of growths, especially along the floor, which he only knew how to treat by means of the drill. If they used the saw they did not know what they were doing, and the operation was, moreover, much more tedious. They must distinguish between the cases where the saw should be used, and those in which the trephine was preferable. An absolutely free surface was necessary to prevent their recurrence. Bosworth said that where it was a perfectly smooth plane they did not have any good result, but he, himself, did not agree with that assertion. He had used Hewetson's modification of the crushing dilator, which was a much more useful instrument than one might imagine on looking at it.

Dr. MACINTYRE said he was very pleased that so much attention had been given to the nose. He himself was not very old, but he could remember that seven years ago the nose was seldom or never examined. Now he supposed everyone examined the nose. He was not sure that they were not falling into an error, and if seven years ago they neglected the nose they were now possibly in danger of overlooking the larynx. He was convinced that excessive surgery was practised in this department. He could not agree with Dr. Hunt that these spurs should be left alone, for he himself removed them frequently, but at the same time he had two cases before him, in one of which excessive treatment had entailed thirteen months' inability to work. He agreed with the position taken up by Mr. Lennox Browne. He had used the ordinary motor drill, and he could certainly commend it. In one case, in which he had operated, there had been serious hæmorrhage the next day, lasting two or three days. He had had no difficulty with the use of the electro-cautery motor. The drills were fine and sharp, and the movement was smooth. He did not think any dental drill could rival the electrical drill. One of the great advantages of the latter was that they could instantaneously arrest it.

Mr. MARK HOVELL remarked that it was not every spur that required removal. There were, however, many spurs that it was absolutely necessary to remove, but before doing so, if the symptoms were not very pronounced, he preferred to treat the swelling of the mucous membrane that was present, with the electro-cautery. If, after the swelling had been removed, the symptoms were not relieved, then the spur might be taken away. As to instruments, he preferred the drill, seeing that it did the work so much more smoothly and effectually than the saw.

Dr. STOKER asked whether Mr. Hovell meant the mucous membrane covering the turbinated bones. (Mr. Hovell: "Yes.") He urged that it was wrong to interfere with the turbinated bone, which was occupying its normal position, and was healthy, when the guilty party was the spur which was pressing upon it.

Dr. HILL pointed out that the importance of the subject had been often recognised in America, particularly by Dr. Curtis in a paper read before the American Laryngological Association in 1889, and a year later by Dr. Jarvis. The only difference as to treatment was the use of the circular saw instead of a circular knife. He, himself, thought the trephine worked most smoothly. He agreed with what Dr. MacIntyre had said as

to the greater smoothness of the motion, and the advantage of the more rapid motion.

The PRESIDENT remarked that he quite agreed with Mr. Lennox Browne as to the importance of having the nose clear in regard to the voice. Something which might not otherwise be harmful, might interfere with the voice, so many letters requiring the further resonance of the nose for their formation. It might, therefore, be a criterion in many cases that if the voice were affected the projection should be removed, otherwise it should be left alone.

Dr. BRONNER, in reply, observed that he had started by saying that there was nothing original in what he proposed, though he was not aware that anything had been published on the subject. He agreed that every spur ought to be treated on its merits, and that too much was often done. He only operated when it was absolutely necessary, when in fact there was real obstruction. Replying to Dr. Stoker, he said that he did not see what harm a few angles left would do. He had tried several saws, and had found them very difficult to use. In reply to Dr. Hunt, he said he could not agree as to the advantage of the electro-cautery, and he had been unable to cut through cartilaginous structures with it. He agreed with Mr. Browne as to the importance of these deviations in respect of the voice, but not as to the instrument he used. He thought that the fact that too much was often done was one reason why nasal surgery had fallen into discredit.

French Laryngological Congress.

Foreign Body in the Mouth causing Ear Troubles.—M. WAGNIER (Lille): The case that I bring forward relates to a child of nine months who had fallen upon the face whilst holding between the incisor teeth a piece of wood 30 centimètres in length. The extremity of this rod broke off and penetrated deeply into the mouth. Four days later ear discharge appeared, and for ten months the child suffered from polypus of the ear; I removed several times these polypi, which induced symptoms of retention of pus. It is evident that the ear was the gate of egress, for the pus developed around the foreign body, which I at last was able to remove from a point situated behind and above the auditory passage at a distance of five centimètres. Immediately the condition improved, the polypi withered away, the tympanic perforation closed with great rapidity. I do not think that there was a direct injury of the Eustachian tube or of the membrane, but that an abscess consecutive to the presence of the foreign body opened into the Eustachian tube.

A Case of Rhinolith.—M. NOQUET (Lille) relates the case of a young man of eighteen, strong and well-built, who came to consult him on account of a very offensive smell arising from the nose, a smell in all respects resembling that of atrophic rhinitis. The right nasal bone was markedly projected outwards and the point of the nose drawn in the opposite direction. There was marked lachrymation on the right side, very slight on the left. Finally, there was no pain. On examining the right nasal fossa, M. Noquet ascertained the presence of a large rhinolith, which occupied the whole of the very dilated middle meatus and sent out

two prolongations, one between the septum and the inferior turbinated bone, the other between the septum and the middle turbinated bone. The speaker showed the pieces which he had preserved in alcohol, and the piece of silk to which some of the concretions had adhered. He called attention to the odour, which it would have been difficult to distinguish from that of atrophic rhinitis. He remarked also how very tolerant the nasal mucous membrane, considered to be so sensitive, had been in this case. Contrary to what is usually met with in regard to rhinoliths, there was no pain either in the nasal fossæ or in their neighbourhood. The only reflex symptom was a slight lachrymation of the left eye. The man pronounced lachrymation of the right eye could be attributed to a compression of the lachrymal canal.

Adenoid Growths in the Adult.—M. RAULIN (Marseilles) drew the attention of his colleagues to the existence and relative frequency of adenoid growths in adult age. Observed in persons of forty, fifty, sixty, and even of seventy years, they date generally from childhood, as is proved by recollection, by osseous deformity of the head, and by the chronicity of the troubles of hearing. Formed most frequently by the hypertrophy of a single group of closed follicles—it may be of the pharyngeal tonsil, or of that of the fossæ of Rosenmüller—these tumours are surrounded by traces of their congeners, which have not escaped as they have atrophy and retrogression. The symptoms are of little importance; respiratory troubles are absent, or, if present, are due to the passive congestion of the cavernous tissue of the turbinated bones. The patients complain, in the majority of cases, either of naso-pharyngeal catarrh, or of deafness. This last symptom is in no way influenced by the destruction of the growths, on account of the long continuance of the lesions of the middle-ear. The most advantageous treatment is by removal with the different kinds of adenotomes; ablation is more completely effected than with the forceps, with which it is not possible to seize the more or less atrophied remains of growth which surround the tumour.

Œsophageal Spasms due to Hypertrophy of the Fourth Tonsil.—M. JOAL (Mont-Doré). Authors in general regard œsophagismus as an ordinary idiopathic affection, that is to say, existing by itself, and arising solely from nervous disorder. I think, on the contrary, that in many cases the œsophageal spasm is of reflex origin, and last year, in the *Revue de Laryngologie*, I have studied nasal œsophagismus, and have published observations on nine patients attacked with spasmodic stricture of the œsophagus, and cured by a treatment directed to the concomitant and originating nasal affection. Diseases of the nose are not singular in causing a neuropathic œsophageal affection. Cases have been brought forward of dysphagia, cured by the ablation of a palatine tonsil, or by the removal of a wisdom tooth. I can relate to you the case of an ecclesiastic, suffering for four years from spasmodic attacks, affecting the œsophagus, and cured by the destruction, by the galvanic-cautery, of the hypertrophied lingual tonsil. This case can be compared with another, which I had previously published, in which the cauterisation of large granulations of the base of the tongue excited also, in the case of a lady, reflex and spasmodic attacks of the œsophagus; œsophagismus can,

therefore, henceforth be included amongst the reflex neuropathies originating in the tonsil.

On some Complications consecutive to the Ablation of Adenoid Growths.—M. CARTAZ (Paris): That when one removes growths, either with the forceps or by scraping, a hæmorrhage results, which may be abundant, but which in general easily stops, is the opinion of the larger number of authors. However, Bryson Delavan has recently recorded four cases of severe hæmorrhage, so severe, indeed, as to cause anxiety. I have observed two cases of this kind. One relates to a young girl of seventeen years, operated on under chloroform. At the two first sittings but little blood was lost; at the third, some growths were removed by the forceps, and still less bleeding ensued; but the next day an abundant hæmorrhage supervened, lasting three hours. The patient's menstrual period was due at the time, and she suffered much abdominal pain; the menstrual flow appeared, and the hæmorrhage permanently ceased. In addition to these two observations, I have collected some other cases which have been communicated to me—two by Ruault; one by Luc; one by Segond; finally, a case was recently related in an American journal. These hæmorrhages do not result, according to the author, from the tearing of an important vessel—they are “hæmorrhagies en nappe,” which occur especially when the tumours have a fibrous consistence; the vessels retract under these circumstances less easily, and means for arresting hæmorrhage are less easily and more slowly applied. These hæmorrhages are equally encouraged by the previous occurrence of congestive or inflammatory attacks of the throat. It is easy to understand that parts which are gorged with blood will bleed more readily. As for treatment, I recommend irrigations with a very warm and astringent liquid. If the hæmorrhage does not stop it will be necessary to plug the naso-pharynx with a large plug, which must pass into the posterior nasal cavity with pressure.

A Case of Hypnotic Mutism; Cure by Suggestion during Hypnotic Sleep.—M. CHARAZAC (Toulouse) relates the case of a young girl of eighteen, who became dumb after severe pain experienced during a sudden movement fifteen days after the swallowing of a needle. The mutism, as frequently happens, was produced in her case in virtue of the accident as the chief hysterical symptom. The patient was persuaded that the mutism was caused by the swallowed needle, lodged, according to her, on a level with the left hypochondrium, where she felt a severe pain. Suggestion during hypnotic sleep restored speech during two days, but the needle and the pain, according to the patient, were not removed. A second time, the patient being put to sleep, the speaker gave a hypodermic injection of morphia at the painful spot; the pain disappeared not to return, and, from that time, the patient has not suffered a relapse.

The Co-existence of Cleft Palate with Adenoid Tumours.—M. BOUCHERON: Lately I have had occasion to observe six cases of cleft palate, and the six patients had at the same time an adenoid tumour of the posterior nares; one of them besides had a *bourse pharyngée* of Luschka. This is doubtless a remarkable coincidence. If it were possible to recognise a relationship of cause and effect between the adenoid tumour

and the palatine cleft one could explain easily that the premature development of the adenoid tumour in the embryo could oppose the welding of the palate, and besides could determine an abnormal shortness of the osseous palatine arch, and a shortness of the turbinate bodies of the nose. It is indeed a new example of the doctrine of Darwin, which has signalled how variability—in excess—of a relatively secondary character (here, the adenoid tumour) could produce variability—in defect⁶—of an important anatomical character (here, the palatine arch) whose development is interrupted. It is, as regards the individual, a state of inferiority. It would not be right, merely for this, to consider the cleft of the palatine arch as a stigma of degeneracy, when the nervous system presents a complete development. It is different if the palatine cleft co-exists with a defect of development in the encephalic nervous system with idiocy, secondary paralyses, etc. It is the same distinction which must be made between strabismus consecutive to a variation in defect of the ocular axis, hypermetropia, or strabismus by variation in excess of the eye, myopia. This is not the strabismus of degeneracy, although strabismus accompanying arrests of encephalic development is a mark of the first importance.

Three Cases of Rhinoliths.—Dr. RUAULT: The first occurred in the left nasal fossa of a lady, aged sixty-six; it was situated in the middle of the floor, between the inferior turbinate body and the septum. The nasal fossa had been obstructed for three years, and, for two years, there had been a purulent and fœtid discharge. The second, nearly similar, occupied the same situation in the case of a lady of thirty-five. Obstruction for three years; purulent and fœtid discharge for six months. The third, much more voluminous, occurred in a naval officer, aged forty-eight. It occupied a good part of the right nasal fossa, and had pushed over the cartilaginous septum to the left, so that the obstruction was bilateral. There had been a purulent and fœtid discharge on the right side. The calculus was broken in the nasal fossa itself, and extracted piecemeal; it had developed around a cherry stone.

The factor of the nasal discharge was very different from that of true ozæna, or of certain cases of tertiary syphilitic rhinitis; it was not very marked.

In the last case only, I have established the presence of a foreign body in the centre of the calculus; but it is probable that further examination will demonstrate, in the two first cases, the presence of a central body around which the calcareous salts and other substances proceeding from the nasal mucus and the tears could have been deposited. The existence of "spontaneous" rhinoliths, that is to say, those that are developed without a central nucleus formed by some foreign body, seems to me in other respects doubtful; it is not easily tenable, because the nucleus could have existed and yet not be easily demonstrable at the moment of examination.

This remark does not apply especially to nasal calculi; it applies equally to the greater part of the calcareous concretions in the other positions of the human body; thus, M. Gallippe has shown that the centre of dental calculi was often composed of collections of fungi which could be regarded as the starting point of their formation.

The American Laryngological Association.

MEETING HELD AT BALTIMORE, MAY 29, 30, AND 31, 1890.

The President's Address was delivered by JOHN N. MACKENZIE, M.D., Baltimore.

The following papers were read :—

I. An anomaly of the thyroid body. JOHN N. MACKENZIE, M.D., Baltimore.

II. Look beyond the nose. S. SOLIS-COHEN, M.D., Philadelphia.

III. A new operation for deviation of the nasal septum. MORRIS J. ASCH, M.D., New York.

IV. Posterior hypertrophies of the middle and inferior turbinated bones. HARRISON ALLEN, M.D., Philadelphia.

V. Notes on a case of myxomatous tumour of the naso-pharynx in a child six years of age. ALEXANDER W. MACCOV, M.D., Philadelphia.

VI. A case of naso-pharyngeal tumour with unusual clinical history. CHAS. H. KNIGHT, M.D., New York.

VII. Adenoid tissue : its development and early history. (Preliminary report.) H. L. SWAIN, M.D., New Haven.

VIII. Supplementary report on cartilaginous tumours of the larynx and on warty growths in the nares. E. FLETCHER INGALS, M.D., Chicago.

IX. A case of myxoma of the epiglottis. S. O. VANDER POEL, M.D., New York.

X. Hoarseness and loss of voice caused by wrong vocal method. S. W. LANGMAID, M.D., Boston.

XI. On the condition known as "chorditis tuberosa." CLARENCE C. RICE, M.D., New York.

XII. Peculiar cases of unilateral paralysis of the lateral crico-arytenoid muscle. E. FLETCHER INGALS, M.D., Chicago.

XIII. A case of bulbar disease with unusual symptoms, causing permanent unilateral paralysis of abduction in the larynx. F. H. BOSWORTH, M.D., New York.

XIV. The diagnosis and treatment of cancer of the larynx. D. BRYSON DELAVAN, M.D., New York.

XV. Notes on an interesting case of aneurism. GEORGE W. MAJOR, M.D., Montreal.

XVI. Stricture of the œsophagus from interstitial thickening of its walls. JOHN O. ROE, M.D., Rochester.

XVII. The Laryngology of Trousseau and Horace Green. F. DONALDSON, M.D., Baltimore.

At the close of the session the Association, by invitation, visited the Johns Hopkins Hospital.

OFFICERS.—1889-90.

President—JOHN N. MACKENZIE, Baltimore.

1st Vice-President—EDGAR HOLDEN, Newark.

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(A report of the Meeting will appear in due course.)

REVIEW.

Massei, F.—Patalogia e Terapia della Faringe, delle Fosse Nasali e della Laringe. Seconda edizione. Two vols. Naples, 1889-90.

WE have deferred noticing the first volume of this important treatise, which appeared in the autumn of 1889, until after the issue of the second volume. The work, now complete, will be welcomed by all who are interested in the subjects of which it treats, and we are glad to hear that its popularity in the profession has extended even to the Antipodes, where, we understand, arrangements are being made (in Australia) for its translation into English.

Prof. Massei needs no introduction to the readers of this Journal, to whom he is already well known by the previous edition of his book and his other numerous scientific writings, as well as by his high reputation as Professor of Laryngology in the University of Naples.

The first volume of the present edition discusses the pathology and treatment of affections of the pharynx and nasal fossæ. The second and larger volume is entirely devoted to the consideration of diseases of the larynx. Each volume opens with the anatomical and physiological chapters which seem to be inevitable in works of this kind. In this instance, however, these are, for the most part, condensed accounts of the results of recent investigations, and are valuable as presenting to the student and busy practitioner the latest views of the structures and functions of these parts in a concise, yet intelligible, form. These anatomical and physiological "sketches" are followed by very detailed accounts of the methods of examining the nose and throat. The description of posterior rhinoscopy is remarkably clear, and goes far to dispel the mystery which, according to some writers, would appear to render this important aid to diagnosis a sort of conjuring trick, to be mastered only by the elect. An excellent feature is the summary of obstacles to be overcome

in certain cases, and many valuable practical hints are given, especially in connection with laryngoscopy.

The chapter on epistaxis has evidently been very carefully written; but we notice that the author does not commit himself to any definite statement as to the site from whence the bleeding usually proceeds. In a general way, he admits that it comes most frequently from the turbinated bodies and the anterior portion of the cartilaginous septum, and he agrees with Voltolini in thinking that the erectile tissue in these situations offers the most favourable conditions for the recurrence of epistaxis. He appears, however, to favour the view that in most cases the hæmorrhage comes from the septum rather than the turbinated bodies, and he cites his own experience in support of that opinion.

As to ozæna, Professor Massei very truly observes, "one might write a volume." For the present, however, he "restrains this vast and interesting discussion" within the limits of a clear, concise chapter of thirty pages, the only fault we have to find with which is that the observations appear to be based upon the view that the bad odour constitutes the disease, of which it is but a symptom. The author traces the history of ozæna through three periods—*ancient*, *middle*, and *modern*. The *modern period* he also terms the *rhinoscopic era*. The cause of the fœtid odour is discussed at considerable length, and the view that it is due to the presence of a bacillus or parasite is advocated. Professor Massei thinks that the bacillary theory receives considerable support from the fact that ozæna is more often favourably influenced by antiseptics than by any other form of treatment. He recommends the dilatation of the nasal passages, when necessary, by means of bougies, and the generous irrigation of the mucous membrane with tepid antiseptic solutions. Amongst the antiseptics mentioned by the author, resorcin, in combination with borax and salicylic acid, is especially favoured. Space does not permit us to enter into a detailed account of the entire volume, which is, generally speaking, carefully written. We may, perhaps, single out for special commendation the important chapter on nasal and naso-pharyngeal neoplasms.

Amongst the additions to the second volume is a chapter on *pacchydermia verrucosa*, of which Virchow's two varieties, the *circumscribed* and the *diffuse*, are described. The author expresses the opinion that the appearances of the circumscribed form are remarkably like those of a papilloma, and he considers that the class of tumours described by Mackenzie under the name of *benign epithelial tumours* may be traced back to *pacchydermia verrucosa*, being especially characterised, according to the latter writer, by simple hypertrophy of the normal epithelium. Prof. Massei states that he has had no personal experience of this affection, and that his remarks are therefore purely theoretical. He, however, suggests scraping as the most rational treatment, and also recommends the use of lactic acid or warm alkaline inhalations. The important subject of laryngeal tuberculosis is treated at great length.

The author admits no less than five varieties of this disease. We cannot help thinking that a part of this classification appears to partake somewhat of the character of hair splitting, and to be of little use from a

clinical point of view. For instance, we believe it would be rather a refinement of diagnosis to declare that a patient was suffering from *miliary deposit in the mucous membrane of the vocal cords*, but that *the cords themselves* were still happily free from *infiltration*. Prof. Massei declares that "tuberculous laryngitis can be cured," but he immediately qualifies this profession of faith by stating that he does not mean the definite and permanent arrest of the disease. In addition to the general hygienic treatment usually ordered, he specially recommends the use of resorcin or lactic acid in conjunction with cocaine. It appears to us, however, that solutions of one and two per cent. of the resorcin or lactic acid could not have any very decided effect in reducing the œdema of tuberculous perichondritis, though they may possibly increase the hyperæmia; beneficial results are probably due to the cocaine. In the ulcerous form, he favours the use of lactic acid with or without the surgical treatment practised by Schmidt and Heryng. The entire chapter is well up to date, and gives a faithful account of the most recent additions to our knowledge of this terrible malady, and of the means which offer the best hopes of benefitting those who are afflicted by it.

We are unable to do more than glance at the other portions of the work. The chapter on the various forms of laryngeal paralysis, and that on neoplasms, have been entirely re-written, and contain references to all the recent advances. In the latter chapter Prof. Massei combats the idea put forward by Lennox Browne in 1875, that benign tumours may become malignant especially as the result of endo-laryngeal operations, and refers to the cases collected by Semon in support of his contention that such a transformation rarely, if ever, takes place.

The volume concludes with an account of the chief endo-laryngeal operations, including intubation. Both volumes are, perhaps, remarkable for the small number of woodcuts of pathological processes, which is scarcely to be regretted, since they rarely convey any useful idea of what they are intended to represent. The various instruments, however, are shown in fairly good plates.

We can strongly recommend this edition of Prof. Massei's work to the profession as a carefully-written account of the present state of rhinological and laryngological science, and we are sure it cannot fail to be of great use to both students and practitioners. It is to be hoped that the English translation will shortly appear.

NEW PREPARATIONS AND INSTRUMENTS.

Caffyn's Liquor Carnis.

A SAMPLE of the above preparation has been forwarded to us. It is described as "meat juice obtained by a cold process, with the addition of a carbo-hydrate." We have tried the preparation, and can speak highly of its nutritive value. Moreover, it is readily assimilable, and not unpalatable. We consider it a preparation of undoubted value in cases of wasting disease, and of debility.

Pepsalia.

WE have received a sample of this preparation. It is a "digestive condiment," and in appearance and taste resembles ordinary salt. It is described as a combination of digestive agents, with salt. It is agreeable to the taste, and, we think, is likely to be of use in cases of weak digestion.

The Wallich Inhaler.

THIS new inhaler, which has been introduced by Messrs. Burroughes and Wellcome, appears to us to be of the simplest and neatest form, and

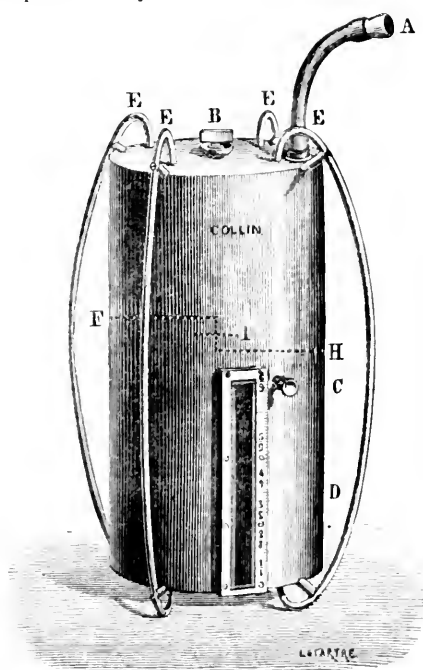


to meet all the requirements of a really serviceable inhaler. We have submitted it to trial and can highly recommend it. The pattern of the

instrument is explained by the accompanying illustration. It appears to us to be a great improvement upon the majority of inhalers in general use.

A new Spirometer.—(Joal).

THIS instrument, very simple and very accurate without valve, tap or mechanism, is a double vase of Mariotte. Two chambers separated by the diaphragm represented by the broken line FH are united by a tube I.



The upper chamber being full of water, if one blows through the tube A, the expired air displaces a quantity of water which falls into the lower chamber, which can be estimated by a graduated window. When the upper chamber is empty one reverses the apparatus and so on.

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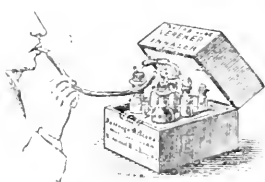
LONDON.]

AUGUST.

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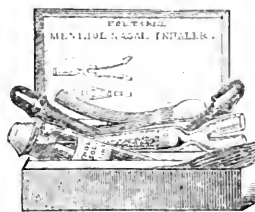
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Extract from letter to the LANCET, from Roland Smith, M.R.C.S., Senior House Physician, London Hospital. "Hamamelis Virginia is one of the most valuable of hæmæstatics, I always use it freely in *menorrhagia and hemoptysis*, with uniformly good results."

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THE
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A CASE OF PRIMARY SARCOMA OF THE
TONSIL.

TREATMENT BY ELECTROLYSIS—DEATH.

By HOLGER MYGIND, M.D., Copenhagen.

OPINIONS differ somewhat as to the frequency of primary sarcoma of the tonsils. There are, however, but few cases recorded in medical literature, and of some of these the tonsillar growth must be considered rather as a co-existing symptom of the disease commonly called *lympho-adenoma colli* than as a genuine primary disease of the tonsil. I cannot but think it to be a rare disease, as I have only been able to find four cases amongst thirty thousand surgical cases registered during the last fifteen years in the Commune Hospital of Copenhagen.¹ Considering that this hospital is one much sought by persons of all classes, and that tonsillar growths are not suitable for home treatment, I think a proportion of one in about seven thousand is exceedingly small.

The patient, Mr. M., whose case I am about to describe, was a man, aged thirty-one, who came under my treatment on February 8, 1889. There was no history of malignant tumours in his family, and both parents were alive and well. The patient had never had syphilis, neither had he been particularly subject to acute inflammation of the tonsils, although he had suffered from it once or twice. He had always enjoyed good health, having hardly ever been ill.

In April, 1888, Mr. M. consulted an oculist for a slight eye trouble, and, as the medical man thought the voice was abnormal, he examined the patient's throat. To Mr. M.'s great astonishment a mushroom-like tumour of the size of a hen's egg was discovered on the *left* tonsil. Up to this time the patient had experienced no trouble whatever in his throat, and had not even noticed the change in his voice. As the medical man insisted upon the absolute necessity of removing this tumour, Mr. M. went to the Royal Frederick's Hospital, Copenhagen, where

¹ The author purposes publishing these four cases in this Journal in an article dealing generally with malignant growths of the tonsils.

Professor Plum performed the operation with the galvano-cautery. A week later there was a somewhat abundant hæmorrhage from the wound, when the eschar fell off. Three weeks after the patient left the hospital perfectly recovered. Since this time there has been no recurrence of the tumour on the *left* tonsil.

In November, 1888, the patient one morning woke up with pains on the right side of the throat, and on looking into his mouth he found a rather large tumour on the *right* tonsil. It had not until that moment caused him the least inconvenience. This second tumour was larger than the former, and was not pedunculated, being situated by a broad base between the posterior and anterior pillar of the fauces, extending also upwards towards the hard palate. The tumour was removed by Professor Plum by means of scissors and the sharp spoon, the bleeding being stopped by means of chloride of zinc.

In January, 1889, Mr. M. began to feel slight pains in the right ear, and became aware of a recurrence of the growth on the right tonsil. Shortly afterwards difficulty in swallowing solid food began, but in other respects the patient felt well. As Mr. M. had made up his mind not to undergo any greater surgical operation, he came to me to try electrolysis, to which treatment I consented, though I gave my opinion that this comparatively new treatment probably did not offer any better chance than operation.

I found the patient healthy-looking, though somewhat thin, and with no appearance of cachexia. His pronunciation was that of a person with enlarged tonsils. Externally there was nothing abnormal to be seen—noticeably, no swollen maxillary glands. He could only open his mouth to the extent of little more than an inch between the front teeth.

The examination of the mouth and throat showed the whole left side of these cavities to be perfectly normal—the *left* tonsil displaying no anomaly whatever. The *right* tonsil was so enlarged that its convex surface was only the sixth of an inch from the middle line. In shape it did not differ much from a common largely hypertrophied tonsil; but the surface did not display any traces of the normal lacunæ, being smooth and covered with a normal-looking, though slightly-reddened, mucous membrane, which appeared considerably tense. The consistency of the tumour was hard, though somewhat elastic, and might perhaps be compared with that of a very thick and hard india-rubber ball. Downwards the tumour terminated in a well-defined manner at the level of the base of the tongue. Backwards the boundary was marked by the right normal-looking posterior pillar, while forwards and upwards the growth had an egg-shaped, though somewhat flattened and anteriorly-pointed, prolongation, which extended about an inch up in the hard palate, nearly reaching the gingiva of the posterior alveolus. The right anterior pillar was only to be seen close to the tongue, but exactly in its place was a longitudinal deepened cicatrix, produced by the last operation, which sharply divided the tonsillar part of the growth from the palatine part, which latter evidently represented a secondary continuation of the former.

On exploration of the naso-pharynx with the finger, the growth was found to be totally free from the side-wall of the pharynx, and the finger

could pass, though not without slight difficulty, between the posterior surface of the growth and the posterior wall of the naso-pharynx. No abnormality was otherwise found in the naso-pharynx. The larynx and nasal cavity were perfectly normal, and breathing through the nose was unimpaired. The hearing of the right ear, measured by a watch, tuning-fork, and the voice, was found to be only three-fourths of the normal; but this was probably owing to the deposit of calcareous substance in the inferior segment of the right drum-head (probably the result of inflammation of the tympanic cavity during childhood). The otoscopical examination did not show any other abnormality of importance—particularly no signs of occlusion of the Eustachian tube. The left drumhead was normal, as also the hearing of this ear.

All the other organs were healthy, the spleen especially being not enlarged, and the lymphatic glands not being swollen. The wine was free from sugar and albumen.

Temperature, 97° in the rectum; pulse, 64; weight, 141 lbs. (English weight).

The treatment with electrolysis was commenced the 10th of February and continued until March 12, during which time the patient underwent eighteen séances, each lasting about twenty minutes. As a rule the electricity was applied four or five days running, with intervals of three or four days. The current was produced by means of the galvanic battery, recommended by Apostoli, of Paris, for gynæcological operations, besides this a rheostat and a rheometer were always used. The strength of the current varied from eight to twelve milliampères, beyond which strength the application caused pain. In the first seven séances the positive electrode was applied externally on the neck and the right side of the head (not including the external ear) in the form of a large fenestrated soft plate of zinc, covered with moistened gauze. Later, both electrodes were applied to the growth in the form of gold needles, of which never more than two were connected with each pole. Whilst the needles connected with the positive pole always remained fixed in the growth, when first applied, the negative electrode needle had to be fixed by means of a long holder, fitted to the patient's forehead, on account of its inclination to slip out. The needles were all applied so that only the peripheral part of the tumour was destroyed.

The electrolytic treatment transformed the growth by degrees to a greyish necrotic mass in its peripheral parts, so that it was at last possible to separate the whole original tumour by means of a slight cut with a knife through the uvula, which meanwhile had become involved in the growth. There was not the least bad smell produced by the process, nor any other sign of putrefaction, and no purulent matter whatever was observed. The temperature, taken every day, never rose above 99 degrees, excepting once when it reached 100·2. The pulse was never beyond 60 (Mr. M. was a tall man). The malignant tumour, however, pursued its rapid growth, which the destruction by electrolysis was unable to keep up with, and the increasing debility of the patient soon prevented further active treatment. The patient lost about nine lbs. in weight during the electrolytic treatment, but was nearly all the time able to attend to

his business (office clerk). Deglutition was not rendered more painful, and the pain in the throat and ear was considerably less during the latter part of this period, probably owing to the diminished tension in the growth, caused by its destruction. During this time the patient took 15 grains of iodide of potash three times daily.

The last period of the disease lasted from March 13 till April 26, when death occurred. During the greater part of this time the patient was fed with nourishing enemata to keep up his strength. He was all the time, however, able to swallow liquid food, and even two days before his death he swallowed nearly four pints of liquid food. Pronunciation became much impaired owing to the circumstance that the progress of the growth involved the movements of the tongue and jaw, which also prevented a closer observation of the development of the tumour. Hæmorrhage from the right ear and the appearance of granulation-like masses in the right meatus indicated, however, an extension of the growth to the right middle ear, and the complete obstruction of the right side of the nose, followed by hæmorrhage and abundant secretion of mucus indicated its spread to the nasal cavity.

The maxillary gland on the right side, which had been swollen for a few days during the first period of my observation, but afterwards became quite normal, soon became swollen and hard, as also some of the superior cervical glands. The function of the larynx was not involved until the last few days, when the abundant secretion from the nose and mouth caused some slight attacks of difficulty in breathing, which attacks, however, were easily overcome by syringing the nose and the pharynx with a solution of boric acid—a process which was performed several times daily during this period of the disease. On April 26 the patient had during the night an attack of suffocation with cyanosis, which was followed by a fit of convulsions, during which he suddenly died. This fit (similar attacks having occurred three times before) was probably caused by the growth involving the base of the skull, but as no post-mortem examination was allowed, this view could not be verified.

The temperature during the latter period of the disease was generally normal, only rising slightly once or twice. There were no symptoms of metastasis in other organs.

The microscopical examination of the tumour, removed on April 12, was made by my friend, Dr. Hørring, of Copenhagen. In the part removed the uvula could be distinguished, while the adjacent parts of the palate formed a shapeless mass. Incisions through this latter showed, that the epithelium on both surfaces was, to a great extent, intact, and without any proliferation into the subjacent tissue; only in a few places was the epithelium slightly necrosed, and partially exfoliated. The growth itself consisted of closely packed cells with ill-defined protoplasm, the nucleus of each cell, 5-9 micromillimeters long, was round or oblong, and notched with a highly developed reticulum, and frequently containing 1-2 nucleoli. The nuclei were well but not deeply coloured by means of alum-carmin. Between the cells were seen stripes of fine and almost structureless connective tissue, which, though it did not form any alveoli, still divided the cells into groups or islands. In this connec-

tive tissue were found fine vessels, the endothelium of which was in many places enlarged, possessing a large bladder-like nucleus; cells of this structure were also found in other places, without it being possible to detect any lumen, and in connection with small groups of cells with star-like elongations. Towards the surface of the growth the cells forming the principal feature of the tumour had a smaller and more homogeneous nucleus, which took a deep colour with alum-carmine, and the protoplasm was smaller than in the deeper parts (migratory cells). The growth contained traces of gland-ducts and muscular fibres, which were atrophied and hyaline degenerated. In the uvula the glands and muscle fibres were well preserved, but there was an infiltration of migratory cells, and small groups of cells of the same structure as described above. This description shows then, that the growth was undoubtedly a *round celled sarcoma*, probably originating in the *endothelial tissue*.

According to Butlin, sarcomas of the tonsils are not primary, but portions of desseminated lympho-sarcomas.¹ This theory certainly holds good in many cases where, simultaneously with the growth in the tonsil, the glands of the neck and other organs of similar anatomical structure and physiological function are involved in the disease. In this case, however, I think there can be no doubt that it was a genuine primary sarcoma of the tonsil, for the only other lymphatic organs diseased were the glands about the maxillary angle on the side corresponding to the tonsillar growth, and these only developed in the latter period of the disease as a mere secondary disease. On the other hand, there were some peculiar features, which seem to indicate that this sarcoma was not a mere local process, viz., the previous appearance of a similar growth on the opposite tonsil. According to the notes on the case taken at Frederick's Hospital—which the surgeon, Prof. Plum, most kindly placed at my disposal—the tumour of the *left* tonsil was microscopically examined, and proved to be of somewhat doubtful character, there being a question whether it was a lympho-sarcoma, or only a simple hyperplasia of the tonsil—the fact that the connective tissue of this growth was much more developed than is usual in cases of lympho-sarcoma speaking in favour of the latter opinion. The growth which afterwards appeared on the *right* tonsil, and which was removed in the same hospital, had exactly the same structure, while the growth removed by me was, according to Dr. Hörring's thorough examination and lucid description, a genuine round-celled sarcoma, which had begun to invade the neighbouring muscular parts of the soft palate and uvula. I think, however, there can be no doubt that the two tumours, removed before the patient came under my treatment, were of the same pathological species as the growth last removed, and this circumstance seems to speak strongly in favour of the theory just brought forward, viz., that this sarcoma of the tonsil was not a local pathological process, but an expression of a general disposition to abnormal processes in the lymphatic organs.²

¹ "The Lancet," 1883, Vol. II., p. 760.

² A case of unusually "recurrent" lympho-sarcoma, published a few days ago by Herbert Snow, strongly supports the views here expressed. In Snow's case a sarcoma of the tonsil was observed in a patient who, four years previously, had had a sarcoma removed from the axilla.—*The Lancet*, 1890, Vol. I., p. 1239.

While reserving further remarks as to other peculiarities of this case to a future article upon malignant growths of the tonsils, I shall only make a short comment on the treatment adopted.

Seeing the rapid growth of the tonsillar tumour, visible from day to day during the two days prior to the commencement of the electrolytic treatment, I had but faint hope of succeeding in destroying the tumour or checking the growth. I even feared that this treatment would rather act as an irritant and accelerate the development. Experience proved that the electrolytic destruction was not able to keep pace with the progress of the growth; but, on the other hand, there is no question that the treatment did not in any way cause the slightest irritation, excepting slightly on two occasions, when the electrode needle happened to touch the uvula and the remains of the anterior pillar of the fauces. As a proof that the electrolysis did not produce any irritation, I may mention that during the whole treatment with electrolysis, no purulent matter whatever was formed, that the temperature, taken every morning and evening, was normal, and that the patient was able to attend to his business. The pains in the throat and ears were also rather less during the latter period of the treatment. As far as the practical details of the electrolytic treatment are concerned, experience proved that the greatest destruction was produced by applying both needles to the growth, and that the positive electrode had greatest effect in destroying the tissue, possessing also the advantage that it is easier kept fixed in the growth, which is no slight consideration when two or more needles are to be used, connected with the same pole. As far as the current strength is concerned, the patient could never stand more than 12 milliamperes, the sensibility being, however, different at different times, caused perhaps by the different degrees of resistance the different parts offered to the electric current. The uncomfortable position during the séance prevented the patient sitting more than twenty minutes at a time. On the other hand, a séance, lasting less, did not give any extensive effect of the electrodes.

Judging from this one case, I do not think that treatment with electrolysis is of any use in malignant rapidly-growing tumours of the tonsils, but, on the other hand, there is no doubt that electrolysis is a powerful therapeutic agent, which acts destructively without causing irritation, and without producing suppuration or putrefaction—processes which otherwise easily develop in the region here concerned, and it is no doubt of value in the treatment of growths of the tonsils of a more benign character than the one here described.

ASSOCIATION MEETING.

American Medical Association.

Forty-First Annual Meeting, Nashville, Tenn., U.S.A. May 20-23, 890.

[Reported by Dr. FRANK H. POTTER.]

SECTION ON LARYNGOLOGY AND OTOTOLOGY.

Chairman—Dr. JOHN O. ROE, Rochester, N.Y.

Secretary—Dr. FRANK H. POTTER, Buffalo, N.Y.

First Day, May 20, 1890.

I.—ANNUAL ADDRESS OF THE CHAIRMAN.

Dr. JOHN O. ROE, of Rochester, N.Y., delivered the Annual Address, the subject of which was the relation between laryngology and otology. Laryngology also included rhinology, and the relation between these three departments is intimate and inseparable. It is a mistake to divorce otology from the family, and make it a separate section. This is so because very few diseases of the ear can be successfully treated without a thorough knowledge of the diseases of the nose, naso-pharynx, and fauces. The otologist must be able to recognise the gross as well as the lesser lesions of the throat and nose. On the other hand, the laryngologist and the rhinologist must be familiar with disease as seen in adjacent organs, especially the ear. He must know not only the laryngoscope and rhinoscope, but also the aural speculum and the tuning fork. It is an encouraging sign of the times to see otology seeking a separation from its old associate, ophthalmology, and forming an alliance with its more congenial friends, laryngology and rhinology.

Notwithstanding the fact that ophthalmology is still trying to maintain its former relation with otology, it must be evident to every intelligent person that the eye and ear have too little in common to justify this relationship. One of the leading men in the ranks of the old régime recently said that he hoped he was the last to harness the two together; and every one in the Section will congratulate him upon his frank confession.

Attention was then called to the programme, especially to the discussion on croup and diphtheria on the third day, and the address concluded as follows: The value of systemic and pre-arranged discussions on important questions is too little recognised in our medical conventions. We believe such discussions to be much more valuable than the simple reading of separate papers on a variety of subjects, however carefully prepared they may be. A paper becomes doubly valuable when it provokes a free and intelligent discussion upon its merits and defects. We cannot over-estimate the importance of a careful comparison of opinions of the part of those whose researches and experience

qualify them to contribute to the cause of medical science. We may accept the wise words of Tallyrand, that "All men know more than any man," and I believe that by combining our wisdom and experience we may each of us make some valuable addition to the sum of our knowledge.

II.—PARTIAL LARYNGECTOMY FOR CARCINOMA OF THE LARYNX. (Report of a Case.) By MAX THORNER, M.D., Cincinnati.

The patient, a married lady, aged fifty-one, had lost her voice for a year. She had been in fair health all her life, with the exception of fainting spells, to which she had been subject for many years. A sister had died from heart disease; a brother is suffering from it at present. Patient was a slightly built woman. No pulmonary affection, no valvular disease of the heart. Pulse 84, rather weak. There was complete aphonia, and slight inspiratory dyspnoea. The laryngeal region was free from visible or palpable signs of swelling; no tenderness to the touch. The right vocal cord normal; the left one was covered by an ovoid swelling, the size of a small cherry, filling completely the left ventricle and the ventricular band. This swelling was covered by normal mucous membrane, and its outlines were not lost in a continuity with the surrounding tissues, but were sharply defined from them, causing the tumour to protrude into the larynx, as if pushing the ventricular band before it. The surface of the tumour was somewhat uneven; the colour of the mucosa slightly deeper than that of the surrounding tissues; the left arytenoid cartilage slightly enlarged.

Administration of potassium iodide for six weeks did not change the condition. Partial laryngectomy was performed, April 15th. Low tracheotomy was done; then anæsthesia continued through an ordinary tracheotomy tube of the largest size. Continuation of the median incision upwards to the hyoid bone, and removal of the muscles from the left wing of the thyroid cartilage by lifting them up, together with the perichondrium, by means of a raspator; no hæmorrhage. Splitting the larynx in the median line from below upwards was followed by some hæmorrhage, coming mostly from the crico-thyroid artery. This was controlled readily, and the operation completed with the head hanging down over the edge of the table. The tumour appeared to be confined to the left side of the larynx. The left wing of the thyroid cartilage was then detached from all connections by keeping the edge of the knife in close contact with it. All the muscles in front of the neck remained intact; the crico-thyroid joint was disarticulated, and the cricoid cartilage allowed to remain. The left superior horn was cut through at its base; the thyro-hyoid membrane dissected closely to the upper margin of the thyroid cartilage. Then the left ala of the thyroid cartilage, together with the tumour and the left arytenoid cartilage were lifted from their attachments. The hæmorrhage was trifling. The trachea above the canula was tamponed with iodoform gauze; also the wound filled with the same material. A small sized stomach tube was introduced into the stomach from the wound.

Patient rallied soon after the operation. The temperature ranged in the following days from 99·5° to 101°. Nourishment was amply introduced

through the tube, and patient gained strength every day. Discharge from the tube was only during the first twelve hours somewhat tinged with blood; after that, always colourless and odourless. There was never any pain in the chest, or dulness, on percussion. Patient was very cheerful; wanted to sit up on the third day. Wound was getting small; had a healthy appearance. Dressing was changed twice daily. On the morning of the fifth day patient began to take solid food. Repeated this at noon without any trouble. In the afternoon of this day temperature suddenly rose to 104°. Respiration, 36; pulse, 120. Then patient began to sink rapidly, temperature became subnormal, and death ensued from heart failure. Autopsy not permitted. Microscopic examination of the tumour showed it to be a typical carcinoma, originating from the ventricle and ventricular band.

Dr. J. SOLIS-COHEN simply took the opportunity to express his appreciation of the admirable manner in which the case of Dr. Thorner had been reported, and to support the conclusion arrived at by the operator, that, despite the unfortunate result, it would be justifiable to perform the operation in similar instances.

Dr. J. P. CREVELING, of Auburn, New York, remarked that death could hardly have been due to iodoform poisoning, as the quantity used was so comparatively small, and the absorbing surface so limited in comparison to many operations, and which are followed by no indications of the toxic effects of the dressing, that to him it seemed quite improbable that death was due to that cause.

Dr. E. FLETCHER INGALS expressed his thanks that a fatal case should have been reported, as far too often only the successful ones were heard of.

He had seen a case of iodoform poisoning, in which for the last forty-eight hours the symptoms were almost exactly like those presented in this case, and he suspected the fatal result in this case was due to the iodoform.

III.—SUGGESTIONS ON THE USE OF ELECTRICITY IN EAR DISEASES.

By E. L. JONES, M.D., Florence, Alabama.

Dr. JONES referred especially to the treatment of chronic non-suppurative or proliferous catarrh of the middle ear by the systematic application of the continuous current. Attention was called to the similarity of the pathological conditions in the ear—thickening, hypertrophied membrane, exudations, etc.—to the pelvic conditions in women with uterine hyperplasia, tumours, and exudations, which are now so successfully treated by electricity. As in its gynecological applications, the current was used for its local stimulant and sorbefacient effects upon the ear.

In making these applications the meatus was filled with warm salt water, and an insulated electrode introduced, attached to the negative pole. If the Eustachian tube was pervious, the other electrode was covered by an ordinary sponge, and placed under the angle of the jaw; if not open, a catheter electrode in the tube was used, which had the effect of making it pervious. In a limited number of cases of long standing good results seemed to follow. The subject was advanced more for the object of fuller investigation than as satisfactorily proven to the author.

Dr. J. SOLIS-COHEN said that many years ago, when in otological work, he had practised the same method in cases of tinnitus, but that he employed as thick

a rod as possible in preference to the wire electrode. He doubted whether electrolytic effects took place unless the naked electrode was in actual contact with the tissues, and he deprecated the passage of a current across the head on account of the risk of producing dizziness and vertigo. He spoke favourably of Voltolini's method of producing electrolysis by having the two electrodes in close opposition instead of using them at a distance.

IV.—GLANDULAR HYPERTROPHY AT THE BASE OF THE TONGUE.

By A. B. THRASHER, M.D., Cincinnati, Ohio.

Dr. THRASHER reported a case of glandular hypertrophy at the base of tongue, and exhibited a photograph of the tumour. The growth was the size of an English walnut, and in shape and structure like a child's tonsil. The patient was forty-four years old, and had been troubled with her throat for over twenty years.

The trouble had within a few years grown much worse, giving rise to indistinct speech, and to serious trouble in swallowing. The choking on deglutition at length grew so bad as to threaten suffocation.

The tumour was removed by means of hot snare, and six years later had shown no tendency to return, and all bad symptoms had disappeared.

V.—HYPERTROPHY OF THE ADENOID TISSUE AT THE BASE OF

THE TONGUE. By J. E. BOYLAN, M.D., Cincinnati, Ohio.

Dr. J. E. BOYLAN, of Cincinnati, reported two cases of hypertrophy of the adenoid tissue at the base of the tongue, one of them producing alarming dyspnoea.

Case 1: Lady, forty years of age, anæmic, extremely weak and nervous, had cystic enlargement of the thyroid gland, which, however, gave her no annoyance. She came to be treated for the following annoying symptoms within the larynx: pain; huskiness; sensation of a lump in the throat, and difficulty in breathing, which became worse at times when lying on her back. Inspection showed the whole surface of the base of the tongue between the fauces, raised to a pale tumour-like mass, which completely overshadowed the epiglottis. The closely crowded elevations covering the irregular surface had, at first sight, a succulent appearance, but the probe showed them to be dense, as it sank readily between them into several deep fissures. Patient was about to start for the mountains to recuperate from an attack of malaria, and declined an operation till fall. During a sojourn in New York, three months later, alarming dyspnoea developed, and a surgeon of that city, who saw in the enlargement of the thyroid, the cause of the dyspnoea, recommended ligation, alternately, of two of the thyroid arteries, without delay. Patient's courage failed her, however, and she was brought home to be treated by a milder method. A few days after her return, Dr. Boylan was called at night, and found her propped up in bed, and suffering from dyspnoea. The condition of the thyroid gland was the same as it had been five months previously, *i.e.*, soft and no larger, but in the swelling at the base of the tongue there was a marked change; it had increased in size, was a bright red in colour; the epiglottis was quite invisible, and nothing could be seen of the larynx but the tips of the arytenoids. Free scarifi-

cation soon relieved her of dyspnœa, and a few applications of the galvano-cautery some days later of all the other distressing symptoms within the larynx, which have shown no signs of returning for two years, although she could never bring herself to have the goitre energetically treated.

Case 2 : Was that of a fairly nourished musician, twenty-two years of age, who had, beside much pain, irritation and weakness of voice, the sensation of a foreign body in the larynx. Inspection showed hypertrophy of the adenoid tissue at the base of the tongue in the median line, where eight or ten very large lobules overlapped and rested upon the reddened and injected epiglottis. On firm traction upon the tongue, the margin of the epiglottis could be seen to free itself from the overhanging tissue. The mass in the median line was removed with a curette, and chromic acid was applied to the remaining excess of tissue, resulting in entire relief from all symptoms. In both cases there was enlargement of the tonsils of the fauces ; and in one, granular pharyngitis.

Dr. WM. PORTER said that the few cases he had seen had not demanded any great amount of surgical skill, the glandular hypertrophy not being very large. In several cases, he had simply split up the hypertrophy, and when the bleeding had ceased, applied a crystal of chromic acid. He had also used blunt curved scissors with long handles, and removed the most prominent part of the hypertrophy, and so secured reduction in the same way as when the pharyngeal tonsil is partly excised. In none of these cases was the hypertrophy very great.

Dr. J. P. CREVELING called attention to a method of treatment he had practised in some few cases where the hypertrophy was confined to a few large polypoid masses. This was by injecting with a small syringe fitted with a platinum point, capable of being bent in any direction, a drug of an astringent nature into each glandular enlargement.

Dr. L. C. CLUIE mentioned one case in which the enlarged lingual tonsil caused some difficulty in breathing. This was increased in damp or rainy weather. The history covered a period of six years, and had been treated during that time in various ways without success. He had applied the galvano-cautery to the enlarged nodules five or six times, at weekly intervals, with entire relief of the symptoms. He preferred the cautery to chromic acid, as he believed it gave less pain, both immediate and remote.

Dr. J. SOLIS-COHEN had never seen as marked an instance of hypertrophy of lymphoid tissue in the base of the tongue as had been reported by Dr. Thrasher, and which was certainly sufficiently like a tonsil to be so termed.

Dr. E. FLETCHER INGALS had seen one case in which the tumour seemed as large as in the case presented here. He had recommended removal with the galvano-cautery. The surgeon in attendance, however, removed it with a knife, and had a terrible time from hæmorrhage.

Dr. DE VILBISS remarked that in three cases occurring in his practice, he had employed either the galvano-cautery or chromic acid as seemed indicated by the particular case under treatment.

Dr. C. W. RICHARDSON said that many of these cases of so-called hypertrophy of the glandular tissue at the base of the tongue occurred in nervous women of the hysterical temperament, and that the effect produced by the use of the cautery, chromic acid, and other operative procedures, is largely a mental one, the physical effect being minimal. In many of the cases in which he had operated, and had produced but a slight destruction of tissue, the result equalled those in which great

destruction of tissue had taken place in order to prevent contact with the epiglottis. He believed that simple searing of the tissue was frequently as efficient as deep cauterisation.

Dr. THRASHER said that possibly some of the so-called cases of lingual tonsil were not true hypertrophies of adenoid tissue, but a varicosity at the base of the tongue. An opera singer had called upon him for reduction of what she glibly termed a "swelling of her lingual tonsil." Inspection revealed only a varicose condition of the veins at the base of the tongue. In most cases of paræsthesia a careful examination would reveal some pathological condition, not necessarily at the base of the tongue, or the pharynx or naso-pharynx, but perhaps in the nares. The case he had reported was unique only in the large size of the hypertrophy.

Dr. BOYLAN agreed with Dr. Thrasher that there may be tumefaction at the base of the tongue from other causes than lymphoid enlargement which may resemble that condition. In this connection, he remembered removing a papilloma from the region of the circumvallate papille, which was demonstrated by the microscope to be such. As regards treatment, he prefers greatly the galvanocautery to the use of chromic acid.

VI.—HYSTERICAL APHONIA. By E. FLETCHER INGALS, M.D.,
Chicago, Illinois.

The author calls attention to what may be termed a conservative law of pathological selection, which causes paralysis of the adductor instead of the abductor muscles in this affection, though both groups are supplied by the same nerve. Were it not for this selection this simple affection would often become a dangerous malady.

Although the disease usually occurs in women, it is not unknown in children, and it is comparatively frequent in men. Although it usually results from hysteria, by various authors some cases are attributed to lead or arsenical poisoning, rheumatism, phthisis, exposure to cold draughts, and even to taking of cold drinks. The author has recently seen two cases which immediately followed accidents, and might, therefore, be called traumatic. The affection sometimes comes on immediately after the exciting cause, but frequently the patients retire with the voice perfect, and rise in the morning to find that they can only speak in a whisper. It is an interesting fact that, although the voice is lost, the involuntary movements of sneezing or coughing are usually natural, whereas the usually voluntary sounds produced in laughing might or might not be affected. In some instances, during attempts at phonation, the cords remain abducted and motionless, whereas in others the cords are brought to the median line, but no sound escapes. In still others the cords can be brought nearly together, but a chink of two or three millimètres in width may remain.

There is but little liability to error in diagnosis, excepting in those cases of sub-acute laryngitis in which the voice is lost before the congestion appears, or in rare cases of tuberculosis where the voice becomes very weak without change in the appearance of the larynx.

The prognosis as to time varies from a few days to many years. With very few exceptions, all cases may eventually be cured if properly treated. Patients should be assured in the beginning of ultimate recovery, but warned that the length of time cannot be predicted. It is known to all

laryngologists that even so slight a thing as an examination of the larynx may sometimes restore the voice. In other cases persistent treatment for years may be required.

In the treatment the greater reliance can be placed upon suitable hygienic conditions and pleasant surroundings, together with tonics such as simple bitters, quinine, iron, and arsenic. But strychnia in large doses has proved more beneficial in obstinate cases than all other remedies.

Local stimulation by sprays, and in protracted cases by the electric current should be tried. The author prefers the static current to all others, next the faradic, and then the galvanic. He recommends that in these cases strychnia be given in doses varying from 1-30th to 1-10th or even 1-8th of a grain three times a day, the small doses always being used at first, the size of the dose being gradually increased, and its effects carefully watched until the physiological effects of the drug are produced. Patients are informed what they are taking, and are instructed as to the physiological effects which they should expect; as soon as these occur the size of the dose is reduced. The remedy is then continued in as large doses as the patient can tolerate until recovery is secured, and for a few weeks afterwards. He has usually given the drug in the form of gelatine or sugar-coated pills, because the solution is so bitter that patients will not take it regularly. However, he thinks it probable that the tablet triturates would be more reliable than either, for sometimes pills are not readily dissolved, and there is a possibility of several doses collecting in the alimentary canal to be absorbed all at once.

The paper concludes with the report of five cases which present some features of special interest. Three of these were males, two females. Two followed accidents; the others were without known cause. One recovered from a single treatment, while another that had lasted six years when it first came under observation required one and a half years of treatment to effect a cure.

Case 1: A man, thirty-nine years of age, had lost his voice three weeks previously, while suffering from an attack of quinsy. He could only speak in a faint whisper. Upon examination of the larynx it was found that on attempted phonation the left cord remained in the cadaveric position, but the right was brought within about two millimètres of the median line; there was neither congestion nor swelling. Static and faradic electricity were used, strychnia and other tonics were employed, and slight improvement followed within a few days; but subsequently the condition of the voice remained essentially the same for about three weeks while he continued under treatment. He then left the city for a few weeks, and on his return, upon attempted phonation, the left cord had a crescentic appearance, but remained at the side of the larynx, whereas the right cord moved about four millimètres beyond the median line. Subsequently the patient was seen four or five times, but he continued the use of strychnia, the dose of which had been increased to 1-10th of a grain three times a day. Altogether he took 1-15th of a grain of strychnia three times a day for about four weeks, and 1-10th of a grain three times a day for about ten weeks, but he never felt any of its physiological effects. He then stopped the use of medicine and patronised one of the popular

superstitions of the day, known as Christian science. After ten days of this his voice returned, and a few days later he said it was as good as it had ever been. Six weeks later the author had an opportunity of examining the larynx, and found that the left cord still remained in the cadaveric position, somewhat crescentic on attempted phonation, but the right cord passed far beyond the median line, so that a chink hardly more than a millimètre was left when the patient attempted to speak. The voice was fairly loud, but hoarse, though it seemed normal to the patient. The case was of special interest because functional paralysis had been superadded to permanent paralysis of the adductor muscles of one cord.

Case 2 : A man, thirty-nine years of age, three weeks previously had lost his voice while suffering from an attack of influenza. His general health was good. The larynx was of normal appearance, but the cords were not approximated on attempted phonation. While static electricity was being applied to the larynx he was told to sound the letter A. This he did perfectly, and the voice continued normal afterwards. The case was quoted to illustrate the rapidity with which some of these affections recover.

Case 3 : A young man, twenty years of age, eleven years previously had suffered an accident, by which it was said the cricoid cartilage had been broken. This had been treated. Upon examination it was found that the larynx and the trachea were of normal appearance, excepting for slight congestion of the vocal cords. As the patient attempted to phonate, the cords were brought to the median line, but no sound escaped. He could only speak in a whisper. He coughed aloud, but said there was no sound when he attempted to laugh. There was evidently no reason for the aphonia, excepting lack of effort on the patient's part.

Case 4 : A young lady, twenty-three years of age, had lost her voice sixteen times during the previous year. Four weeks before consulting the author she had been thrown from a buggy, and had been taken up in an unconscious condition, on recovering from which she was unable to speak. The voice had not returned since the accident. Upon laryngoscopic examination, it was found that she could sound the letter A when directed to phonate, but ordinarily the vocal cords were not approximated by about two millimètres on phonation. Static electricity was applied, and she was directed to speak as the current was passing. The voice returned, but disappeared directly after the treatment was discontinued ; however, it returned again an hour and a half later, and continued for thirty-six hours, when it was again lost. She was given tonics, iron, quinine and strychnia in moderate doses ; static electricity and mild stimulating sprays were applied to the larynx about every second day for a period of about seven weeks. During this time, her voice was restored at nearly every treatment, but it would disappear after a few hours. The patient suffered from insomnia, was despondent, and complained of being extremely tired. At the end of seven weeks, the dose of strychnia was rapidly increased until the patient took 1-10th of a grain three times a day. When this dose had been reached, the voice became permanent, and continued so while the medicine was being

taken. About four weeks later, the dose was reduced, and she had been sent to her home, but the author learned that about three weeks afterwards the voice again disappeared. The dose of strychnia was again increased, but the result is unknown.

Case 5 : An unmarried lady, twenty-nine years of age, had lost her voice six years previously, while suffering from an attack of pneumonia. In the meantime, she had only been able to talk in a whisper. She had been under treatment off and on, at somewhat irregular intervals, for a year and a half. During the last two months of this time she was taking large doses of strychnia, and the voice finally returned, and did not again disappear. The topical treatment had been irregular most of the time, the patient had been faithful in taking the internal remedies, and therefore the author attributed the success of the treatment mainly to the influence of the strychnia, though other tonics had been taken for some time with it. The case was of special interest, as illustrating how long the voice may be lost, and yet be completely restored.

Dr. WM. PORTER reported a case, on record elsewhere, in which aphonia had existed for a number of years. There was no atrophy, and voice was restored by very simple means. It was evidently a case where, as mentioned by Dr. Ingals, there was the ability but not the will to speak.

Dr. J. SOLIS-COHEN considered that the paper was so thorough that little of importance could be added to it, and he could endorse from long experience all the views that had been expressed. In some of these cases of functional aphonia there is an inability to send the will to the laryngeal muscles, and these are the cases immediately cured by some strong impression on the patient. He believed that hypnotic influence in some cases would substitute the will of the operator for that of the patient, and that it would in some cases differentiate a functional from an organic paralysis. He had long been familiar with the necessity for large doses of strychnia, and had even reported in 1872 an instance in which three-fourths of a grain a day had been given for some time before the physiological effects were reached. He preferred a solution of one grain to the ounce of water, beginning with a small dose, and increasing drop by drop as far as requisite.

Dr. F. H. POTTER endorsed the value of large doses of strychnia in those cases not amenable to the influence of a strong impression upon the mind of the patient. He generally used the tincture, and, by gradually increasing doses, had at last given 75 minims of the official tincture (U.S.P.) three times a day before obtaining a successful result. In his opinion, used judiciously, it was our most important therapeutic agent.

Dr. MAX THORNER remarked that we meet occasionally with cases of functional aphonia, which are not amenable to treatment. A married lady of very neurotic disposition was, two years ago, treated with the faradic current, galvanic current, and static electricity. In fact, the usual treatment in such cases was pursued. There was no paralysis of the cords. Only temporary improvement was the result. The patient was afterwards under the care of different and very competent physicians. She was sent to the mountains, to the sea-shore, and subjected to a long course of strychnia treatment ; however, she is still aphonic, and has only at times and at long intervals an audible voice. There are, however, cases which can be cured by very simple means—often, for instance, by energetically brushing the larynx with strong astringents, or by introducing a very hot mirror into throat, etc. In some cases in young people very good results were seen by having the patient systematically practise the pronunciation of monosyllables in a deep base voice.

By repeating this every day, and encouraging the patient to add words of two syllables, and finally sentences, a cure has been obtained, and generally in a few weeks.

Dr. A. B. THRASHER said he coincided with Dr. Ingals in giving strychnine until its physiological effects were observed without regard to the amount of the drug required. He also thought that some of the cases of functional aphonia were reflex in character, in illustration of which he mentioned a case of aphonia with acute oedema of the turbinate bones obstructing the nares, where the voice returned on opening the nose with a cocaine spray. Some of these cases, then, of functional aphonia may be reflex in character.

VII.—THE PATHOLOGY AND TREATMENT OF TINNITUS AURIUM.

By A. A. HUBBELL, M.D., Buffalo, New York.

After speaking of the various forms of tinnitus, the author entered into a more detailed consideration of its pathology, and the pathological changes which may lead to it. As to its pathology, he believed it to be due to some disturbance of the auditory nerve filaments. This disturbance might be in the intricate end structures, or in their course to the brain. Any unnatural vibration, tension, or irritation brought to bear upon them will be conveyed to the sensorium, and express itself to consciousness as tinnitus in some form. In some disease-processes arterial vibration is transmitted, and the tinnitus is pulsating. In others the venous flow is felt as a continuous noise. Again, pressure upon the labyrinthine fluid produces continuous sounds of various kinds. Inflammatory and hemorrhagic affections of the internal ear, and neoplasms of the brain pressing upon the auditory nerve also cause tinnitus.

The treatment resolves itself into ascertaining and removing, so far as possible, those conditions which lead to the nerve disturbances upon which tinnitus depends. The usual methods of treating Eustachian obstruction and middle-ear catarrh, middle-ear suppuration with its complications, syphilitic affections, etc., were referred to, and the use of the pneumatic speculum in exercising the ossicles and membrana tympani, hypodermic injections of pilocarpine, electricity, and excision of the ossicles were especially recommended in selected cases.

VIII.—A SIMPLE AND EFFECTIVE METHOD OF ANESTHETISING THE PHARYNGEAL TONSIL. By J. E. BOYLAN, M.D., Cincinnati.

This method consisted in injecting about 20 minims of a 10 per cent. solution of cocaine into the pharyngeal tonsil by means of a highly curved [pharyngeal] canula, screwed in the usual way to the barrel of a graduated glass hypodermic syringe. The instrument was exhibited. The advantages are rapid and almost complete anæsthesia and ease of application.

IX.—CHOLESTEATOMA OF THE EAR. By B. ALEX. RANDALL, M.D., Philadelphia, Pennsylvania.

Dr. RANDALL urged that cholesteatoma was insufficiently studied, and that its importance was masked by the name "desquamative otitis." True pearly tumours are rare, but certainly do occur as primary growths in the ear, and the nature and danger of the secondary pearly bodies is

better shown by using the same name. Virchow has recently stated that in fifty-three fatally-ending cases of ear disease cholesteatomata were present in fifteen, and may have been the cause of others. In clinical work these laminated epidermal masses are frequently met, and, although often secondary to obstructive suppuration, they are in some cases the cause, while in others they maintain the disease. They tend to enlarge by pressure the cavities in which they form, and may thus destroy all adjacent structures, and break through into the external canal, into the lateral sinus, or into the cranial cavity. Four notable cases from his practice are cited, with the note that this condition has seemed specially frequent in deaf mutes. The removal is always tedious and difficult, but should be regarded as essential, and, as recurrence is probable, these cases should always be followed.

Second Day, May 20th.

X.—THE IMPORTANCE OF PRELIMINARY TREATMENT OF THE NASAL MUCOUS MEMBRANE BEFORE RESORTING TO OPERATIONS.

By DR. CARL SEILER, Philadelphia.

Dr. SEILER in his paper stated that it was of great importance that the nasal mucous membrane should be prepared before any operation for the removal of any obstruction to respiration can be resorted to. He called attention to the fact that this warning had been frequently given, not only by himself in various papers read before medical societies, but also by Dr. Roe, of Rochester, several years ago, but that he found it had not been observed in general as it should have been. He made it a point that if an operation were performed upon an inflamed mucous membrane it would result in the sum of the two inflammations, and the result would be disastrous. Yet many of the medical profession did not recognise this fact, and persisted in resorting at once to an operation without proper preparation of the patient's nasal mucous membrane, as well as of his general condition. The preliminary treatment which he advocated consisted in first advising the patient to cleanse the nose morning and night with an alkaline solution, containing some of the antiseptic ingredients of vegetable oils, etc., and also the application to the inflamed mucous membrane by the physician every other day of a solution of iodine in glycerine. He stated that it was of the greatest importance that this solution should be of such a density that osmosis could not take place between the liquid in the nasal cavities and the blood in the cavernous tissue of the turbinated bodies. The formula of such a solution he had published, and is as follows :—

Sodii bicarb. et sodii bibor.	āā ʒ viij.
Sodii benzoat. et sodii salicylat	āā gr. xx.
Eucalyptol et thymol.....	āā gr. x.
Menthol.....	gr. v.
Ol. Gaultheria	gtt. vj.
Glycerine	ʒ viiiss.
Alcoholis	ʒ ij.
Aquæ.....	q. s. 16 pints.

Mr. CHARLES DOBSON, the former manager of Mr. Fred Brown of Philadelphia, and at present successor to him, at Dr. Seiler's request, made numerous experiments in order to compress the solid ingredients of the above formula into the form of a tablet or pastile, so that one of these, when dissolved in four tablespoonsful of water, would give a solution equal in density, as well as equal in every other respect, to the solution obtained by the above formula, and Dr. Seiler found that the pastiles thus made answered every purpose and were more convenient for use by the patients than the solutions. Numerous manufacturing firms finding that these antiseptic pastiles were received both by physicians and patients with great favour, imitated them, and not knowing the formula (which Dr. Seiler himself stated he did not know), put some pastiles on the market, which, however, do not answer the purpose, and are rather irritating than otherwise. He therefore advised physicians to use the solution, even if less convenient, made according to his formula, if they could not obtain the pastiles made by Brown. He further mentioned, that in cases of hay-fever and similar affections, operations or cauterisation should never be undertaken while the attack is in progress, as originally pointed out by Dr. Roe.

The next point of interest in the paper was the statement that astringents whether in solution or in the form of powder, did not act as kindly upon the mucous membrane of the nose as they did upon other portions of the mucous membrane elsewhere; and that, owing to the peculiar physiological function of the nasal mucous membrane of the nose, powders of any kind should never be introduced into the nasal cavities, except in cases where atrophic catarrh was present, and finally he concluded his paper by the statement that the recent epidemic of the so-called "influenza or grippe" had a deleterious influence upon the process of healing after nasal operations.

Dr. CHEATHAM agreed with Dr. Seiler in most of the points in his paper. He differed, however, in regard to the treatment of "hay fever." He had come to believe that after all nasal stenosis had been relieved, the best application was a 50 to 75 per cent. solution of chromic acid, just before or in the first stage of the disease.

Dr. E. FLETCHER INGALS had not found it necessary to use preliminary treatment before operating on chronically inflamed mucous membrane, but he deemed it eminently important that time should be allowed for recovery before operating when acute inflammation was present. He was sorry that the author did not approve of powders, for they were very useful in proper cases. Regarding the remarks of Dr. Cheatham, concerning the use of a 75 per cent. solution of chromic acid in hay fever to the whole surface of the nasal mucous membrane, he thought it would be very dangerous in many cases. He had used chromic acid often to limited areas, but had always found it had caused a sore that was often long in healing, and that frequently caused the patient great inconvenience.

Dr. E. L. SHURLEY remarked that he could agree in the main with what Dr. Seiler had said. It seemed to him, however, that although the standard saline solutions should be recommended, yet there were individuals who experienced pleasant effects from solutions of either higher or lower specific gravity.

He did not see the necessity of previous preparation in those cases where the

swelling is chronic, so called, for it is a question whether that condition can be properly considered an inflammation.

Of course he did not believe in operative procedures, unless necessary for the relief of stenosis, etc.

The substitution of connective tissue for a normal mucous membrane is a matter deserving serious consideration. Regarding the use of powders, he fully agreed with Dr. Seiler, because his experience in their use had been very disappointing. He had not noticed that during this season (of "La Grippe") that recovery after operations had been delayed.

In answer to Dr. Cheatham, Dr. Seiler said that chromic acid should never be used in the nasal cavity because it was well known that this acid was a solution for cartilage and bone, and that, owing to the fact that it could not be localized to any spot upon the mucous membrane, it would be carried to the different parts and produce injurious effects, so much so, that workers in bi-chromate of potash works even after only a few days were attacked with ulcerations, and finally perforation of the septum. Powders, as had been stated in the paper, were always injurious, and should not be used except in atrophic cases.

Dr. Shurly made a very welcome correction in my paper, inasmuch as he pointed out an omission, namely, that if there is no congestion nor inflammation present in a given case, preliminary treatment is not necessary.

Dr. Ingall's remarks are certainly pertinent, and he agrees with me that chromic acid as a cauterizing agent is dangerous, even if used in as diluted a form of eight grains to the ounce of water.

XI.—THE IMPORTANCE OF SURGICAL MEANS APPLIED TO THE NASO-PHARYNX IN THE RELIEF OF NASO-PHARYNGEAL AND MIDDLE EAR CATARRH. By C. M. RICHARDSON, M.D., Washington, D.C.

The author referred to the able work already done in this direction by Dr. W. H. Daly. He called attention to the frequent need of active operative interference in the naso-pharynx in order to relieve and aid in the restoration of diseased conditions of the middle ear. Many aurists give but imperfect attention to naso-pharyngeal complications in these diseases. Several cases were cited illustrating this fact. Most affections of the middle ear coming under observation show some form of obstructive lesion of the naso-pharynx. The *modus operandi* by which these lesions produce their results, whether by interfering with ventilation of the middle ear, by extension of catarrhal inflammations, by inflammatory infiltration into or paralysis of the tubal muscles, are questions of minor importance as compared to the great truth now universally acknowledged that these conditions are produced by the affections mentioned, and that the only consistent, scientific, rational, and therefore proper treatment consists in the primary removal of the causative agent as essential to the secondary treatment of the disease thereby produced. Even should the above assertion be challenged in general, or as regards any individual case, one cannot but admit that many of these cases, in the hands of the aurists, are allowed to continue suffering more or less inconvenience from unpleasant naso-pharyngeal afflictions, which the auro-rhinologist would at once recognize and properly treat. The aurist should be more of a rhinologist, and the rhinologist more of an aurist, the two branches should be closely combined and studied by the same surgeon. The two regions

under consideration are closely related by nature—the diseases of the two should be studied together.

Dr. W. E. CASSELEERY said that the point made by the reader of the paper of the desirability of still more intimate association of the departments of rhinology and otology is of such importance that it will bear reiteration. He was sure that some of the most brilliant successes of the rhinologist have been in cases of cure of aural disease by surgical procedures in the nose and naso-pharynx, which have previously been unsuccessfully treated by the exclusive aurist; and on the other hand, the exclusive aurist scores successes in cures not due to or complicated by naso-pharyngeal disease which have resisted the methods of the rhinologist, for the simple reason that the latter is not always familiar with the detailed *technique* of exclusive aural treatment. Especially in our dispensaries and hospitals are these departments still frequently separated, and patients oscillate from one to the other in search of treatment which they cannot obtain completely in either.

XII.—LYMPHOID HYPERTROPHY IN THE PHARYNGEAL VAULT.

By JONATHAN WRIGHT, M.D., Brooklyn, New York.

The paper was not intended as a complete review of the subject. The gradual conversion of the normal lymphatic tissue into "adenoids" was described, as was its ultimate atrophy and the fibroid changes which ensue. The author objects to the word "adenoid," as those not familiar with the subject are apt to think of adenomata and of true tumours. He prefers "lymphoid hypertrophy."

The fibroid or cicatricial tissue left behind after atrophy of the growths, the author has seen so abundant as to make a sort of false roof to the naso-pharynx connected to the true vault by loose connective tissue. He does not believe that lymphoid hypertrophy ever begins in adult life, although the symptoms may first become apparent then.

He thinks that to a large extent the narrow palatal arches, crooked nasal septa, and high, narrow pharyngeal vaults, so often seen in these cases, are causes and not results of the post nasal disease. The shape of the cranial bones inherited from ancestors narrows these cavities, and thus by narrowing the angles and air passages makes the dislodgement of secretions more difficult both in a state of health and of disease. This acts as an important, both persistent and often repeated, factor, and as an explanation of why these conditions so often co-exist. He does not deny, however, the possibility of excessive post-nasal obstruction retarding somewhat the development of the facial bones. The symptoms and sequelæ of the disease are passed over as too well known to laryngologists for discussion. He cautions against making a diagnosis during any acute inflammatory condition of the naso-pharynx, as the extent of the trouble is then always greatly exaggerated. In operating on children under twelve years of age, the author prefers primary ether anaesthesia, avoiding deep narcosis as unnecessary, and as making the operation more difficult and dangerous from the liability of blood and tissue getting into the trachea.

Those past fifteen years of age can nearly always be operated on in several sittings under cocaine anaesthesia. On the latter cases he uses the galvano-cautery with the aid of the post-nasal mirror, to burn away small

protuberances left behind by the forceps. Of the latter instruments, he prefers the modification of Loewenberg's by Woakes, and those of Gradle.

He mentions a case of secondary hæmorrhage in a young lady on whom he had operated under cocaine, in which the patient lost more than a quart of blood, and in whom it was necessary to plug the naso-pharynx. The patient was healthy and had no bleeding tendencies under ordinary circumstances.

Microscopic examination of the growths showed only the ordinary amount of vascular tissue.

The author cautions against giving too favourable a prognosis in cases of Eustachian deafness from post-nasal troubles in adults. If the Eustachian catarrh has existed more than a year or two, permanent changes have been set up in the middle ear which renders complete relief impossible, and which often preclude any very great amount of improvement.

XIII.—IMPERFORATE AUDITORY CANALS. By SETH S. BISHOP, M.D.,
Chicago, Illinois.

Dr. SETH S. BISHOP, of Chicago, reported four cases of imperforate external auditory canals—two congenital, and two traumatic.

He operated to form meatuses in three of the cases. No bony canal was found in the one congenital case operated on. The auricle in this case was deformed, and the operation extended to partly correct it.

The two traumatic cases were operated on with the result of obtaining usefulness of the ears for hearing. In one of these the auricle was severed from the head by a waggon when the patient was three years old. There was no hearing up to the age of thirty-two years, when Dr. Bishop operated, finding the canal filled for three-fourths its length with dense fibrous cicatricial tissue. The other traumatic case was similar, but both had retained the integrity of the conducting and perceptive apparatuses.

Few American authors have reported finding these conditions, while numerous European writers have described them. In a series of more than eight thousand cases of diseases of the ears Dr. Bishop found but one case of complete closure from exostosis, three congenital, and three traumatic—seven in all.

XIV.—THE SURGERY OF THE SUPERIOR LARYNGEAL NERVE IN SPASMODIC DISEASE OF THE LARYNX. By J. P. CREVELING, M.D.,
Auburn, New York.

The paper contained the history of two cases—one of division of the superior laryngeal nerve, which was made necessary by a tumour involving that structure, and which produced reflex disturbance in respiration, etc.

In the second case the nerve was cut down to and tension applied for relief of spasmodic attacks of the larynx. In both instances the operation gave the desired result.

The conclusions were as follows :—

From the result in the above two cases it may be inferred that the superior laryngeal nerve has an important bearing in spasmodic disease of the larynx.

1. That irritation of its terminal fibres, as well as that of the body of the nerve, may produce spasm of the larynx.
2. That a disturbance of this nerve may be reflected to other parts supplied by the pneumo-gastric, and *vice versa*.
3. That division of the superior laryngeal may not be followed by serious results in the larynx.
4. That proper tension applied to the trunk of the nerve may modify its influence or action on the parts to which it is distributed.
5. That under certain circumstances it may be advisable to stretch or divide the nerve.
6. That the operation should not be performed except to relieve some extreme condition not amenable to other treatment.

XV.—NOTE ON NASAL HÆMORRHAGE. By FRANK H. POTTER, M.D.,
Buffalo, New York.

The paper referred especially to cases of hæmorrhage associated with or dependent upon septal deformity. No erosion could be detected, but the bleeding seemed due to great tenuity of the mucous membrane. Constitutional causes and other local morbid conditions must be excluded in these cases. These hæmorrhages generally occur from the anterior part of the nose, and the favourite points are along the sutural lines between the triangular cartilage and the vomer and perpendicular plate of the ethmoid. The treatment consists in removing the deformities by operative means where they are sufficiently large to cause obstruction, or when projecting sharply, even if there is no obstruction; or when the bleeding occurs without these deformities, especially upon the concave side of a deflection, the bleeding surfaces should be cauterised by chronic acid fused upon the point of a probe. Frequently the cauterisation must be repeated before success is obtained.

Dr. W. E. CASSELBERRY said, that in cases of nasal hæmorrhage not accompanied by erosion, or not secondary to systemic states, in addition to the apparent thinness of the mucous membrane he had noticed a varicose condition of the vessels in the immediate vicinity of the bleeding point. Such enlargement and multiplication of the vessels is apparently due to the extra irritation incident to septal excrescence and deflection, or from contact with an hypertrophied turbinated body. The destruction of these varicose vessels by the cautery explains the success of this method of treatment. In reference to plugging the posterior nares the Bellocq's cannula is not well suited to the purpose.

A soft rubber catheter of small size, passed backward and drawn from the pharynx through the mouth by forceps, the plug attached, and then drawn into place is better. Plugging the posterior nares is however very objectionable, on account of the liability of septic inflammation of the middle ear to follow; notwithstanding, the plug may be pulled well forward away from the tuberosity of the Eustachian orifice. After some recent unfortunate experience in this

direction he feels that he would not again plug the posterior nares, except as a very last resort.

Dr. E. FLETCHER INGALS had had considerable experience with hæmorrhage from the nose, but had never seen one in which exostosis from the septum appeared to have had any influence in the causation. He usually found either an erosion or a bleeding point which could be cauterized by the galvano-cautery, which he preferred, or by nitrate of silver, which he had often found satisfactory. He plugged the nares when necessary with a strip of antiseptic gauze saturated with a mixture of tannic and gallic acid, with enough water and glycerine to make a mixture of the consistence of thin syrup. This was tucked in from the front, fold after fold, and could be easily removed by the patient. He had the impression, founded only on the experience of a single case and what he had read, that it was unsafe to leave a plug in the posterior nares more than twenty-four hours, because of the danger of decomposition of the blood and consequent sepsis.

Dr. CHEATHAM stated that when the nose was to be plugged there was nothing better than a small malleable wire as proposed by Dr. J. Solis-Cohen. It passes through any nose and is easily manipulated. In the large majority of cases the bleeding is from the anterior third, and the important point is to locate the bleeding surface and treat it directly. He prefers the galvano-cautery if it is at hand; if not, he plugs by introducing the forceps holding a small cotton pledget, leaving nasal respiration free if possible. In this way the patient suffers but little discomfort.

Dr. A. DE VILBISS also preferred the galvano-cautery when necessary to plug the nose. He generally used small pieces of cotton introduced anteriorly until the nostril was sufficiently filled to cause pressure over the bleeding surface.

Dr. E. L. SHURLY agreed as to the difficulty of plugging the posterior nares with Bellocq's sound. He had devised a modification of Elliott's uterine sound which was flexible and easily introduced, and afterwards bent forward under the soft palate by means of a thumb screw. The distal end or knob has a fissure in which can be inserted the loop bearing the plug. He had never had middle ear inflammation following posterior plugging occur in his practice. He had seen one case which had been plugged by another physician where the tampon had undoubtedly been lodged against the Eustachian orifice. He had found it expedient to leave a long loop passing through the nasal passage and out of the mouth, to which a plug can be attached easily by means of a slip knot, thus changing them daily. He had no doubt that many of the cases of epistaxis belong to the initial stage of Bright's disease.

Dr. J. E. BOYLAN recalled two cases in which he had succeeded finally in locating the source of the hæmorrhage in the nares, and checking an exceedingly obstinate bleeding with the galvano-cautery, but not until it had become necessary to plug the posterior nares, and then it proved impossible to introduce Bellocq's cannula. He succeeded finally in passing a wire through a large-sized Eustachian catheter, and thus catching the thread.

Dr. MAX THORNER reported a case of persistent and constantly recurring epistaxis in a patient who suffered from chronic Bright's disease. He considered Bellocq's cannula an entirely unsatisfactory and superfluous instrument. Plugging the posterior space could readily be done by introducing a Eustachian catheter, as already suggested, or by using an ordinary soft rubber catheter, or with a stout violin string. However, he thought that posterior plugging was rarely, if ever, called for.

Dr. F. H. POTTER said that the discussion on plugging the posterior nares, though slightly foreign to the paper, was interesting and instructive. He concurred

in the opinion that it was a procedure that was better not to be performed. When, however, it was necessary, the instrument of Dr. Shurley's was the best for the purpose—it is more easily managed than a soft rubber catheter, and is fully as efficient.

XVI.—AURAL COMPLICATIONS FROM CHRONIC CATARRHAL INFLAMMATION OF THE NOSE AND THROAT. By W. I. EDWARDS, M.D., Nashville, Tenn.

Dr. EDWARDS detailed several cases illustrating the complications seen in the ear from catarrhal inflammations of the upper ear tract. He also outlined the method of treating these secondary conditions. It was first of all important to restore the nose and throat to a healthy condition. Then treatment directed to the aural complications would be followed by more permanent and complete success.

XVII.—A NEW METHOD OF BRONCHIAL MEDICATION BY MEANS OF A SPRAY AND TUBE DURING THE ACT OF DEEP INSPIRATION. By J. MOUNT BLEYER, M.D., New York.

This method consists of introducing a spray tube through a rubber tube, which latter is held in the mouth. The advantages of this method were thoroughly considered. Among them may be mentioned the comfort to the patient, and the ease with which the bronchial tract can be treated locally. The paper was accompanied by several drawings showing the method, and must be read to be appreciated.

Third Day—Thursday, May 22.

XIX.—DISCUSSION ON CROUP AND DIPHTHERIA.

(The Section on Diseases of Children was present by invitation, and took part in the Discussion).

Dr. CARL SEILER, of Philadelphia, first spoke on the duality of the two diseases as follows:—

In the absence of Dr. Cohen, who was announced to open the discussion on the duality of croup and diphtheria, I have been appointed to take his place and, of course, am absolutely unprepared to do justice to the subject; however, I will try to do the best I can. In the first place, I am fully convinced that diphtheria and croup are two distinct and separate diseases—distinct from each other in all their symptoms, their peculiarities, and remote symptoms. Let me enumerate: They tell you that diphtheria is a disease which, attacking a child in a family in which there are more children, will be communicated from one child to the other, and its clinical aspects are the deposit of a thick, yellowish membrane, or pseudo membrane, upon the surface of the mucous membrane of the throat or tonsils, which, when forcibly removed, leaves excoriations with considerable bleeding, and producing considerable pain to the sufferer. It is communicated from one case to another until, finally, all the children in that family are stricken with the disease. But, more than that, the disease shows itself suddenly, without warning—strikes down its victims in apparently good health, and the probability of recovery or

death apparently depends merely upon the amount of poison absorbed by the body of the victim, so that, if there are four children in one family, the first one has absorbed sufficient poison to kill it, no matter what a physician may do ; with the second one, it is " nip and tuck " in spite of all treatment ; the third one will, in all probability, get well whether treated or not ; and the fourth one will get well in spite of all treatment. That is diphtheria. There is, however, a distinct feature, which has perhaps escaped the observation of a good many of our best physicians, and that is the peculiar odour exhaled by the body of the patient, and also the peculiar odour produced by the membrane in the throat. If we consider, now, on the other hand, pseudo-membranous-croup, we find an entirely different aspect. The child has been sick and listless for some days ; it has had a cold ; it was disinclined to play ; and finally, one night its mother was aroused by a short metallic cough and gasping for breath by the little sufferer. The physician is called in, of course, at once. He administers the proper remedies, and the child will linger for days and days, and either gets well or dies ; but none of the other children in the same family will be suffering in the same manner, and there is no characteristic odour perceptible, such as we notice in a case of diphtheria ; and further, if the child gets well, we have never, under any circumstances, any paralysis following the attack and lasting during convalescence, while such an accident is not only common but almost absolutely certain to occur in the convalescence of diphtheria. I, therefore, hold that the two diseases are clinically as well as pathologically entirely distinct, one from the other ; and hold also that the treatment should be entirely different. There is, perhaps, a similarity in the two diseases, in the appearance of the false membrane, as well as in the elevation of temperature, together with the other febrile symptoms, yet, if closely observed, every one who is accustomed to make an analytical observation, will readily discover the discrepancies in these points,—that is to say, the membrane of diphtheria is of a yellowish hue ; the temperature of the body is rather high ; and the membrane is apt, in fact certain, to curl up at the edges, while in membranous croup, the membrane is white, does not curl up at the edges, and is devoid of all peculiar odour, and the temperature is rather low, considering the amount of fever present.

I must ask your pardon for the rather meagre and unprepared remarks with which I have addressed you this afternoon, but I would like you to understand, and I would like to emphatically state, that I firmly believe in the duality of the two diseases called diphtheria and membranous croup ; and I hope that my remarks will give rise to an interchange of opinion, as well as aid us all in arriving at a conclusion which may lead to a better understanding as to the nature and treatment of the " dread disease," called diphtheria.

Dr. WILLIAM PORTER, of St. Louis, being called upon to sustain the question of identity of croup and diphtheria, said that it was with much hesitation that he responded, because he was taken unawares, having expected to speak upon the subject of treatment, and also because clinical evidence is not entirely conclusive as to the identity of the two conditions, and that in America at least, the voice of the majority of the profession is in favour of the proposition that these are two separate and distinct diseases.

It could not be denied that a plastic exudation is in rare instances found in the larynx, which is no more diphtheritic than is plastic bronchitis, or the partially organised exudation which may follow acute inflammation of the mucous membrane anywhere. Such cases are very rare, and are exceptions to the position he affirms, *i.e.*, that the ordinary exudation of laryngeal croup is a local expression of diphtheria.

He could not agree with Dr. Seiler, that the prodromal phenomena of croup are more marked than those of diphtheria; or that there is any characteristic odour of diphtheria, certainly not in the early stages of the exudation before necrosis begins. After that the odour is often pronounced though not characteristic. It must be remembered, however, that there is seldom the same amount of destruction of the mucous membrane in croupous diphtheria as in pharyngeal, and this is probably due to the difference in anatomical structure.

Herein is an explanation of most of the critical distinctions, which observers have made in diphtheritic exudations of these two locations. The speaker referred at length to Mackenzie's local analysis of the subject, as given in his monograph on Diphtheria in 1879, and said that none of his conclusions had as yet been refuted.

Macroscopically and microscopically there is no difference in the exudation, except such as can be explained by location, and clinically the distinctions are due to the same cause. It must not be forgotten that clinicians have found that when a child has escaped the great danger of laryngeal stenosis in so-called croup, the treatment that is most effective is that which is also found best in diphtheria.

The speaker then reported several cases which were clinical pictures of "laryngeal croup" in the beginning, but where, after tracheotomy had been performed, the extension of the membrane into the pharynx and the subsequent death of the patients from blood poisoning, proclaimed the existence of diphtheria.

He believed the theory of identity is the safer one, not only for the child affected but for those who might be exposed to infection, and closed with the thought that a careful study of aggregated clinical evidence would at least modify the views now so largely held by the profession in this country.

Dr. D. BRYSON DELAVAN, of New York, presented a paper in which he said that remarkably full and elaborate discussion of this question for many years has resulted in leaving the matter still in doubt. While there are several symptoms which are more common in the one condition than in the other, there is hardly one which has not been observed in both conditions. Positive clinical evidence, therefore, is as yet not fully established. In view of this it is desirable that proof outside of the clinical features of the case be obtained. Prudden has recently shown in the *American Journal of the Medical Sciences* for May and June, 1889, that there is in diphtheria a destructive micro-organism, similar to the bacillus of erysipelas. The relation of diphtheria to croup will be proved by the discovery or not in the latter condition of a similar bacillus. Until this is done the question can hardly be authoritatively settled.

Dr. NATHAN JACOBSON, of Syracuse, New York, said croup is but a symptom—the clinical expression of acute laryngeal stenosis. It may be excited by spasm, catarrhal infiltration or diphtheritic deposit.

Diphtheria is an infectious disease of local origin. Its primary seat may be in the pharynx, the nares, the larynx, the bronchi, the vulva, the skin, or any other part of the body, at which the infectious matter may be introduced.

The infection, wherever its primary site, spreads through the system, with greater or less rapidity, producing secondary constitutional disturbance. Appearing in the pharynx, it may be of mild type, the patient recovering with or without any treatment. It may be severe, when the deposit, still membranous, is thick and firmly adherent. Or it may be malignant, when the infection seems to penetrate the tonsils so rapidly that it forms no characteristic membrane, but changes their entire appearance, by its thorough saturation.

No one denies that the membranous disease of the larynx producing croupal symptoms supervening upon pharyngeal diphtheria, is of diphtheritic character.

The question, however, is: "What is the nature of those cases in which no pharyngeal disturbance is apparent, but in which the membranous disease is primarily laryngeal?" Can such a condition exist which is not diphtheritic?

Dr. SOLIS COHEN remarked: It will have to be admitted, that if the condition known as membranous croup does exist, the affection must be in its beginning, its course and end purely local, neither spreading to the pharynx nor awakening constitutional infection. Briefly stated my reasons for believing membranous and diphtheritic croup to be identical are as follows:

In many cases the pharyngeal disease may have preceded the laryngeal affection, and have been so mild as to have thoroughly disappeared before the laryngeal manifestations demanded the attention of a physician.

We may encounter cases in which there has been apparently no source of infection. There is no pharyngeal disease; yet the membranous cast of the larynx and trachea has been known to be infectious. In one of my cases, where tracheotomy had been performed, a medical student in charge amused himself by drawing the cast over his lead pencil and was rewarded by the acquisition of pharyngeal diphtheria.

The membranous deposit may be limited to the larynx, and yet constitutional infection develop. Some years ago I saw, with another physician, a child which had been tracheotomized for what he insisted was "membranous croup." Two days after operation the urine, examined at my request, presented nothing abnormal. On the fourth day albumen appeared; on the sixth, the child died in uræmic convulsions, never having shown any pharyngeal diphtheria, nor having conveyed the disease to its sister, although the latter was freely exposed.

The disease may ascend. It may even begin in the bronchioles, as I saw it do in a child having capillary bronchitis, following measles, and ascend to the trachea, larynx, and pharynx, causing this child's death, and other cases of pharyngeal diphtheria. I have frequently tracheotomized children in whom the laryngeal obstruction was extreme, and not have any indications of pharyngeal disease, until several days after operation.

Occurring in very young children, the laryngeal obstruction may be severe enough to cause fatal dyspnoea at such an early period, that the diphtheritic disease has not been given time to spread to the pharynx.

The disease may be diphtheritic and not manifest its infectious character, by being conveyed to other children who have been exposed. A little patient, upon whom I did tracheotomy, was constantly surrounded by two other children who never acquired the disease, although the little one operated upon died of diphtheritic paralysis.

We are told that to be regarded as diphtheritic, cases must present a characteristic odour. This, I am sure, is by no means always present. Recently I saw a child with pharyngeal and laryngeal diphtheria. Because there was no odour, the physician in attendance could not believe the disease to be diphtheria. No attempt at isolation was made. Another child in the same family, however, acquired the disease from the exposure, and both died.

Again, it has been said to-day, that diphtheria must exhibit a high temperature. There are cases accompanied by considerable fever. Yet to me the condition most to be feared is where there is extensive and severe local disease yet the temperature remains about normal. This normal or sub-normal temperature under these circumstances I regard as an evidence of great malignancy.

Some of the Germans distinguish between a croupous and diphtheritic deposit by saying that the former is a deposit upon, the latter an infiltration into the tissues. In my very last case, the diphtheritic deposit had not quite disappeared

from the pharynx when the laryngeal invasion occurred. The laryngeal deposit did not infiltrate deeply, and hence was but slightly adherent. Croup symptoms grew marked in twenty-four hours. The characteristic recessions of supra-sternal, supra-clavicular, and epigastric regions appeared. Tracheotomy was under consideration, when the child expelled the membrane. Free breathing was temporarily restored; but the membrane reformed, and after another twenty-four hours, becoming suddenly dislodged, was caught in the child's larynx, in its effort to expectorate it, and caused death by suffocation, before aid could be obtained.

As in the pharynx, so in the larynx, the diphtheritic deposit varies in appearance, thickness, and adherence, with the intensity of the infection. Though it be superficial and easily separated, it is none the less diphtheritic.

That many cases of so-called membranous croup are in reality catarrhal laryngitis, I have frequently had occasion to verify.

Not all cases of pharyngeal diphtheria are followed by evidences of constitutional contamination. In the larynx, where the communication with the lymphatic system is even less close, the absence of albuminuria, urinary suppression, paralysis, etc., is not to be regarded as indicative of the non-diphtheritic nature of the affection.

While with the laryngoscope we are able to recognize the presence of the membranous deposit, I know of no appearances which render it possible to differentiate between so-called membranous and diphtheritic croup.

This question is a most important one, because of the necessity of isolation, if there be infection. As, therefore, there are no positive clinical points by means of which we can make a differential diagnosis; as there is nothing in the history of a given case to establish its non-infectious character, beyond the question of a doubt; I believe we owe it to the community to say, we have no means of distinguishing between membranous and diphtheritic croup.

I believe, furthermore, that it would be wise to discontinue the use of the term "membranous croup," and to speak, as do most foreign writers, of only "primary laryngeal diphtheria."

Dr. E. R. EARLY, of Ridgeway, Pa., read a paper entitled, "Croup."¹

The discussion was continued by Dr. H. D. DIDAMA, of Syracuse, New York, Dr. E. F. BRUSH, of Mt. Vernon, New York, Dr. LEWIS, of Chicago, Ill., Dr. N. C. SCOTT, of Cleveland, Ohio, and Dr. F. L. SHURLY, of Detroit, Mich.

Dr. WM. H. DALY, of Pittsburg, then considered the medical treatment of these conditions, as follows:—

Much has been taught of late years, yet little of practical value learned, of the more successful medical treatment of diphtheria. This fact is witnessed by the continued high death rate.

And yet it is still to the medical and not the surgical treatment that the patient must hopefully look for salvation, since at best the surgical aspect of intubation and tracheotomy, though valuable aids in the relief of patients, are a last resort in cases that have become desperate and imminently dangerous to life.

I have no intention of attempting to tell you anything new as to the medical treatment of diphtheria, but you will pardon me if I undertake to draw your attention again to a well tried plan of treatment which I had the honour of bringing to the notice of the profession, in a paper entitled "The Simplest and Most Efficient Treatment of Diphtheria," which I read before the Congress of the American Laryngological Association in Philadelphia, in 1886. The treatment may be new to your experience as it was recommended and is still uniformly *practised* by me, with results more satisfactory than by any other plan.

¹ This paper will appear in the Proceedings of the Section of the Diseases of Children.

Now is it not better to bring to your notice, after four years' further trial, a really *good plan* of treatment, than to undertake to tell you of something that is new, and at best, only a candidate for that bountiful hospitality which the profession is now extending to everything new and novel, and has done so for the past ten years? We really flourish in an era when any novelty, no matter how absurd, can get a lodging place and the best accommodation, and willing disciples to propagate a worship of it, whether it be pumping gas into the rectum of a phthisical patient "à la Bergeon," or the injection of an emulsion of the testes of the barn yard fowl into the tissues of the prematurely aged or decrepit.

A novelty is our idol for the day, a medical fad is a trick to lure our poor human frailty; not that we like to deceive, but that we are so easily deceived.

Since the article before alluded to, there have been numerous modifications of its plan of treatment, each with its advocates, all, or nearly all, of the methods containing a mercurial.

Many of them I have tried, but I have invariably had reason to think better of the results obtained with the calomel treatment, pure and simple.

I hope no gentleman will hold me to account for not mentioning this or that remedy for the medical treatment of diphtheria, as I am not encyclopædic in my character as a therapist in this disease, and do not intend to wander far from the pure calomel treatment until some other plan is so well established by others as to assure me better results than I now get, and such results as you can get if you will follow the plan as I have, and not handicap the treatment with all sorts of other drugs, local and constitutional. I am not an enthusiast by any means, inasmuch as the success of any plan of treatment has never been sufficient to make one feel proud of medicine, but of all I know and have tried, this is the best. Try it, try it as directed, and don't modify it with the one hundred and one things that are newer, and that theoretically seem as though they ought to be good.

It is admitted on all sides in our profession that calomel is a most active germicide, and were it soluble in water would soon displace the bichloride of mercury in surgery; but in diphtheria there is an advantage in being able to give this medicine in powder in large doses, so that we get the local germicidal action as well as the constitutional effect, and I am sure that if our remedy is early administered that many of the threatening complications may be prevented. In many personal letters I have received from colleagues concerning this treatment they tell me they have their patient die suddenly, during apparent convalescence, after all the membrane has disappeared, and they appear to die from heart paralysis, or from heart clot.

We all know that the calomel pulse is a slow pulse, and also that the poison of diphtheria is one of great depression of vitality, therefore it is an important point to keep the patient in a strictly recumbent position until convalescence is well established, and this in practice is difficult to inculcate with parents and nurse.

Now, what is the method clinically? We will say, to a child three or four years old, suffering from diphtheria (early recognition and opportunity are, as a matter of course, of the utmost importance with this as with any other plan), give of pure, untrituated or unmixed with sugar, calomel, in two to five grain doses, every one, two, or three hours, either dry on the tongue, and washed down with a little iced water, or better given, floated on a little iced water, in a tea spoon. This is repeated at intervals until free catharsis follows. The stools are to be carefully observed, and when they assume the appearance of having floating in them gelatinous masses of dark, rather brightish, green bile, giving them an appearance resembling chopped spinach, or the water-polyps seen in watering troughs, then the intervals of the dose can be lengthened

so as to keep up this condition of catharsis to the extent of one to three stools each day. It is not well to diminish the dose, but simply to lengthen the interval, as there is less liability by this means to produce pyalism. This is an important point, and ought to be remembered. It has been a matter of much surprise to me that there is so little depression caused by the exhibition of these large and frequently repeated doses of calomel in diphtheria, and that pyalism is so infrequent, especially so if the careful observation is made to keep up catharsis, or, rather, that fluid condition of the contents of the alimentary canal where the osmotic action is toward them from the blood-vessels, and not *vice versa*. Under this condition of treatment the membrane exfoliates and reforms, if at all, with less and less readiness; the fever abates; the prostration is slowly replaced by brightness, and a disposition to activity, which latter should, of course, be prohibited, lest heart paralysis or syncope should suddenly supervene and cause a sudden fatal termination to the otherwise favourably progressing case.

This I have not found necessary, but I have adhered to the calomel in large and frequently repeated doses, with rather light but nutritious fluid diet, and have found it the most efficient of any treatment; and withal so simple for the nurse and so merciful to the patient. The latter is no small factor in the method when we compare the dreadful struggles of the little sufferer at the sight of the commonly used—shall I not say abusively used—throat-brush and bottle, and all the other implements of the more elaborate treatment, to this simpler one of getting the child to open his mouth to drop a powder in, followed by a readily accepted spoonful of ice-water. There is needed no argument to show which is the most desirable practically; and I can assure you, that this needs but a faithful trial to show you the greater efficiency in results of this over all other plans of treatment.

But there are some rules which I beg you will follow faithfully. These are: (1) Give calomel in its purity; (2) give it in large doses; (3) give it frequently; (4) give it until you have the free and characteristic catharsis; (5) give light, nutritious diet; (6) give little or no other medicine.

If these simple rules are followed, and common sense is allowed to take the place of common prejudice, you will save more of your diphtheritic patients by this than by any other method known to modern medicine.

Dr. G. E. WAXHAM, of Chicago, presented a paper upon the **Surgical Treatment of Croup**. To those competent to do the operation with delicacy and skill he recommended intubation in preference to tracheotomy at all ages, under all conditions, and under all circumstances. In support of this advice he fully reported 285 cases with 100 recoveries or 35 per cent. These cases were not selected, the majority of them being among the poor and destitute where tracheotomy would hardly have been considered. The ages ranged from six months to twenty years. These operations were not performed early, but as a last resort after other measures had been tried and the patients given up to die. The ages were as follows:—

Under	1 year		10 cases with	3 recoveries or	30	per cent.
Between	1 and	2 years	37	„ „	9	„ „ 24'32 „ „
„	2 „	3 „	46	„ „	10	„ „ 21'76 „ „
„	3 „	4 „	47	„ „	17	„ „ 36'17 „ „
„	4 „	5 „	59	„ „	23	„ „ 38'98 „ „
„	5 „	6 „	27	„ „	14	„ „ 51'85 „ „
„	6 „	7 „	18	„ „	7	„ „ 38'88 „ „
„	7 „	8 „	20	„ „	9	„ „ 45'00 „ „
„	8 „	9 „	7	„ „	4	„ „ 57'14 „ „

Between 9 and 10 years	6 cases with 3 recoveries, or 50'00 per cent.
" 10 "	11 " 3 " " 1 " " 33'33 " "
At 12 "	2 " " 0 " " 00'00 " "
" 13 "	1 " " 0 " " 00'00 " "
" 14 "	1 " " 0 " " 00'00 " "
" 20 "	1 " " 0 " " 00'00 " "
	<hr/>
285	100 35'00 " "

In conclusion, Dr. SEILER answered the remarks made by the different members of the section as follows :—

The first is Dr. Porter, of St. Louis, who has certainly been placed in a very difficult and embarrassing position, by having to defend a cause in which he does not believe. From what he said and from what I know of him, I think he does not believe in the similarity of croup and diphtheria, but is in harmony with myself in believing that the two diseases are different in clinical as well as pathological aspects ; and I shall therefore abstain from making any remarks whatsoever in answer to his points or arguments, which were prompted not so much by his conviction as by the duty imposed upon him by the chairman of the section. At the same time I would like to remind Dr. Porter that diphtheria as a rule, as I stated in my opening remarks, is always sudden in its onset, and that the difference in colour of the pseudo membrane may or may not be a diagnostic sign, yet the colour of that pseudo membrane, as well as its odour, after a certain lapse of time are certainly very significant, and are a very great aid in the differential diagnosis.

In answer to Dr. Jacobson's remarks, in which he made the point that diphtheria was a purely local disease, and that the infection was purely local in its character, I would like to say that such a statement is untenable and certainly the speaker did not mean what he said, for he, as well as anybody else who has seen and treated cases of diphtheria and croup, knows well enough that there are in diphtheria systemic disturbances long before the local manifestations of the disease in the throat ; and furthermore, that diphtheria may show itself in other parts of the body than in the mucous membrane of the upper air passages.

He is further mistaken as to his decided opinion that the odour of diphtheria has nothing to do with it ; is not a diagnostic sign.

The odour is present, even if Dr. Jacobson cannot perceive it ; but this is not the fault of the disease—it is the fault of the observer. As to the temperature, which he stated very distinctly was no guide to the diagnosis, I fully agree with him, because I do not look upon the thermometer as an infallible instrument to determine fever, but when taken together with the pulse, the condition of the patient and the thermometer, the latter forms an important factor in the diagnosis of the case.

Dr. Dedima, of Syracuse, New York, certainly believes, like all general practitioners who have had large experience both in country and city practice, that there is undoubtedly a difference between diphtheria and croup, for otherwise he would certainly not have told us of his experience, where in a small town, not far from his native place, Syracuse, numbers and numbers of children died some twenty-five or thirty years ago of a disease which he called croup—pseudo-membranous-croup—and at the public funerals the neighbours came, kissed the children in their coffins, went to the funerals, and no more was heard of it, until he tells us, about ten years afterwards, a young girl in her teens was attacked by a disease closely resembling membranous-croup. As usual, the neighbours came in, kissed the corpse in the coffin, went to the public funeral, and what was the result ? An epidemic of diphtheria in that village,

which carried off sixty or eighty lives, directly traceable to that one funeral. The doctor certainly supports me most emphatically in my statement that here is a difference between the two diseases.

To the remarks of Dr. Daly, of Pittsburg, I have very little to say in answer, because they relate purely to the treatment of the disease in question. It is certainly very gratifying that he has always succeeded so well with the treatment proposed and mentioned by him in his remarks.

Dr. Shimwell, of Philadelphia, on the other hand, in his remarks, states, that he prefers intubation to tracheotomy. I would simply call his attention to the fact, that, whenever there is any obstruction of pseudo-membrane in the lower portion of the larynx, it is not the inspiratory act that is embarrassed, but it is the expiratory act, which is prevented through the membrane in the trachea and below the vocal cords, closing the glottis and preventing the carbonized air from escaping easily. Therefore, intubation in those cases is not as satisfactory, in my opinion, as tracheotomy, for when the latter operation is performed, we can easily reach through the wound into the trachea, and even remove the pseudo-membrane, which may result in an egress of air.

Dr. Brush, in his remarks, stated that he had only seen three successes out of thirty-three cases of intubation, and that he had found that the difficulty was to feed the child without producing laryngeal spasm, due to the introduction of food into the wind-pipe.

He also stated, however, that this might possibly be overcome by the use of a long tube nursing bottle, and feeding the child by letting it lie flat on the bed without any pillow. I am not prepared to say anything in regard to this, because I have not had sufficient experience in that line, and I can only say and reiterate what I said before, that I prefer tracheotomy to intubation.

And, finally, to conclude my remarks, my friend, Dr. C. Scott, of Cleveland, certainly has put himself on record as being a firm believer in the duality of croup and diphtheria; for in his remarks, as regards the treatment of this disease, he states that he had had eighty-four cases of diphtheria treated by this method, and but one death. I, therefore, certainly must believe in the duality, and that croup and diphtheria are two different and distinct diseases, in spite of all that has been said here this afternoon.

This concluded the programme before the Section.

The officers were elected for the ensuing year as follows :—

Chairman—Dr. CARL SEILER, of Philadelphia, Pa.,

Vice-Chairman—Dr. C. W. RICHARDSON, of Washington, O.C.,

Secretary—Dr. A. B. THRASHER, of Cincinnati, Ohio.

FRANK H. POTTER, *Secretary*.

DIPHTHERIA.

Kohts. *On Diphtheria.* "Mittheilungen an der Strassburger Rudaklinik Zeitschrift für Klin. Medicin." Bd. 17. Communications from the Children's Hospital in Strasburg.

DURING nine years the author has treated 938 cases of diphtheria in his clinic at Strasburg. Of the patients, 439 died, equal 46 per cent. Tracheotomy was performed on 439, equal 46 per cent., of whom 271, equal 61 per cent., died. According to the author the septic cases always end fatally, and only the cases of non-septic character (local diphtheria) can sometimes be cured; in severe cases, as in fever, all specific medicaments were without any effect. The treatment can only be symptomatic. The results of tracheotomy differ very much in the several epidemics, varying between 97 and 37 per cent. In nearly all cases of diphtheria the disease was complicated by nephritis; in all cases acute, and, if cured, not leading to relapses. Of special interest is a form of disease of the kidney, consisting in obstruction of the canaliculi by red blood globules, observed in cases of diphtheria treated by chlorate of potash. Two histories of cases of this affection illustrate it. The author no longer uses the medicament internally. Paralysis of deglutition is often observed following diphtheria. These cases must be treated by nourishing diet and injections of strychnine. Paralysis of other muscles must be treated in the same manner, but if there is paralysis of the respiratory muscles no treatment is effectual and death is certain. Sometimes sudden death is observed during convalescence. *Michael.*

Wurtz and Bourges. *Bacteriological Researches on the Pseudo-Diphtheritic Scarlatinal Sore Throat.* "Archives de Pathologie Expérimentale," March 9, 1890.

THE studies of the authors related to children suffering from scarlatina, in whom the gravity of the throat symptoms was so great as to necessitate their removal to the diphtheria ward. The bacteriological examination of the false membranes in every case revealed the presence of the streptococcus pyogenes, either alone or mixed with the other microbes occurring in suppuration. In none of these cases did the authors find the specific bacillus of diphtheria, the bacillus of Klebs-Löffler. On the contrary, in two cases of pseudo-membranous sore throat, occurring late in scarlatina, this bacillus existed in the false membranes. One of the children suffering from the sore throat, and in whose case the streptococcus was found, caught croup in the diphtheria ward, and died. Wurtz and Bourges arrive thus at the following conclusion: The sore throat occurring early in the course of scarlatina, whatever may be the apparent gravity of the symptoms, is not, in the great majority of cases, of diphtheritic nature. It is important, therefore, not to transfer children, who are affected with the malady, to the diphtheria ward, where they would be liable to contract the formidable malady from which they were previously free. *Joad.*

Leonhardi (Dresden). *Croup and Diphtheria*. "Corresbl. der Aertzlicher Vereins in Sachsen," 1889, No. 5.

THE author records his experience of forty years, and recommends a symptomatic treatment without application of specific medicaments.

Michael.

Kingsbury, Edward (Blackpool).—*Diphtheria and Measles*. Jan. 11, 1890.

SHORT notes of the case of a boy, aged three and a half years, in whom an attack of measles supervened on diphtheria. *Hunter Mackenzie.*

Heubner (Leipzig). *Remarks concerning Diphtheria Scarlatinoso*. "Jahresb. für Kinderheilk.," Bd. 31, Heft 1, 2.

POLEMICAL article.

Michael.

Brühl and Fahr (Berlin).—*Diphtheria and Croup in the Kingdom of Prussia in the Years 1875-82*. Hirschwald, Berlin, 1889.

VOLUMINOUS statistical review. The authors believe that the disposition to the disease is increased by the alternations of dry and moist air.

Michael.

Gerasimovitch, Petr J. (Poltava).—*On Faucial Diphtheria*. Poltava Gübcrnsky Zemsky Hospital's Reports for 1888, 1890, p. 22.

THE author analyses a series of 79 consecutive cases of faucial diphtheria admitted to the said hospital in 1888, and referring to patients, aged from 1 to 30 (44 male, aged from 1 to 15, and 35 female, aged from 1 to 30), 74 of them being under 10 years of age, 46 under 5. Of the total, 40 (51·9 per cent.) died, 13 on the day of their admission, the remainder on an average in 3·27 days. The fatal cases referred to patients under 10, of them 24 being under 5 years of age. The following table shows mortality with regard to the variety of the disease :—

Variety.	Number of cases.	Died.	Percentage of deaths.
Diphtheritis fibrinosa faucium	50	16	22
Ditto et nasi (laryngis, palati, mollis, linguæ)... ..	9	6	66·6
Diphtheritis gangrenosa faucium	15	13	86·6
Ditto et nasi (resp. laryngis)	5	5	100·0

Of complications, in 17 cases lymphadenitis colli was present ; 1, angina Ludovici ; 3, paralysis palati mollis ; 1, dysenteria acuta ; 3, intermittent fever ; 2, bronchitis ; 1, acute nephritis ; 1, tubercular meningitis.

The treatment consisted in (a) painting, irrigating with, or inhalation of, solutions of chloride of zinc, perchloride of iron, lactic acid, corrosive sublimate ; and (b) internal administration of benzoate of sodium, turpentine-oil, chlorate of potassium, and liquor ferri perchloridi. In many cases tracheotomy was proposed by the author, but invariably declined by the patients' relatives.

Valerius Idelson.

Küznetzoff, J. V. (Bakhmüt).—*On the Treatment of Faucial Diphtheria*. "Rüsskaia Meditzina," No. 17, 1890, p. 261.

THE writer recommends the following means :—(a) A brisk purgative to commence with. (b) Menthol and naphthalin, locally, after the formula : Rp. Mentholi, 3·75 gram. ; spiritus vini, q. s. ad solutionem. Deinde

adde naphthalini, 3.75 gram. in olei terebinthinæ 7.5 gram. soluti; et glycerini, 7.5. M. D. S. To paint the fauces every two or three hours. To shake well before using. (c) Lime-water, as a gargle; to be used frequently. (d) Antipyrin and benzoate of sodium in peppermint water, internally.

The plan was tried in nine cases of severe diphtheria, affecting patients from one and three-quarters to fifteen years of age. Of these, two (aged twenty months and two years respectively) died, but the remaining seven recovered after treatment of from three to five days' duration.

Dr. Kûznetzoff adds that a local treatment of diphtheria by resorcin, tannin, sulphate of copper, chromic acid, and nitrate of silver proved quite useless in his hands. He also found that Soulez's mixture (one part of carbolic acid, three of camphor, and four of olive oil), recently eulogised by Dr. Barteneff, was by far inferior to perchloride of iron with borax and glycerine (which, in their turn, were much inferior to menthol with naphthalin); in addition, the mixture causes prolonged burning pain.

Valerius Idelson.

Duchamp.—*Intubation of the Larynx in Croup.* "Loire Médicale," April 19, 1890.

THE author has performed this operation four times, twice with and twice without success. He allows that intubation is as effective as tracheotomy, and recommends it for young children in whose case tracheotomy seldom succeeds, and considers it the preferable operation when it is necessary to act quickly, to avoid all wounds susceptible of infection, and to operate without help, or with but feeble light. It is a rational and practical operation.

Joal.

Massei.—*My Fifth Intubation in Laryngeal Croup.* "Arch. Ital. di Lar.," May 2, 1890.

ALTHOUGH the case ended fatally (a child 4 years old) Massei is convinced that tracheotomy could not have succeeded better. Intubation has then perfectly overcome the occlusion of the larynx, but not prevented the consequence of general poisoning of the system. Feeding was perfectly possible. The author is of opinion that a comparison between intubation and tracheotomy in croup is not reasonable. Intubation may be first performed, and if not successful in relieving the obstruction, tracheotomy may be had recourse to. In general we should obtain from the parents permission for the performance of tracheotomy later on before we proceed to intubation.

Massei.

NOSE AND NASO-PHARYNX.

Pins (Wien).—*New Method of Irrigation of the Nose.* "Wiener Med. Woch.," No. 16, 1890.

THE author applies an apparatus consisting of a bottle, the cork of which is doubly perforated, and through which are fixed two tubes. One of them ends in an olive and is applied to one nasal cavity. Into the other the patient blows as strongly as possible, with the mouth. During blowing the soft palate closes the naso-pharynx, and the fluid will return by the other nasal cavity. *Michael.*

Coupard and Saint Hilaire.—*Contribution to the Study of Neuralgic Headaches and Migraine of Nasal Origin.* "Tribune Médicale."

THE authors record twenty-one observations of neuralgic headaches and of migraine depending upon a nasal affection. *Joel.*

Trifiletti.—*On some Cases of Nasal Neurosis.* "Arch. Ital. di Lar.," April, 1890.

WITH good cause the author points out that the exaggeration of the nasal reflex, is the cause of some mistakes. Together with Lichtwitz, Trifiletti believes that the existence of a neuropatic disposition (neurasthenia or hysteria) is to be allowed, and that we ought to separate cases of simple reflex neurosis from other pathological conditions, which, though very slight, may produce in predisposed subjects troublesome symptoms, and even pam, neuralgia, paræsthesia, etc., in the nasal region.

The cases quoted by the author are illustrative of these practical views. *Massei.*

Ziem (Danzig).—*Skoliosis of the Vertebral Column and Obstructive Nasal Disease.* "Monats für Ohrenheilkunde," 1890, No. 6.

By obstruction of one half of the nose the author produced in rabbits skoliosis of the vertebral column in high degree. By the obstruction the development of the face is diminished on that side, and this is followed by the malformation of the vertebral column. One patient was observed by the author, who became skoliotic after having acquired a traumatic malformation of the septum. *Michael.*

Landow (Göttingen).—*On a Rare Case of Malformation of the Nose.* "Deutsche Zeitschrift für Chirurgie," 1890, Bd. 6.

A CHILD, five weeks old, had a normal right half of the nose. The median part was covered with skin. Instead of the left half there was a body one and a half centimetres long, three-quarters centimetre broad, resembling the trunk of an elephant. Extirpation of the trunk. Four years later in the place of the trunk there was a little fistula. *Michael.*

Fraenkel, B.—Berliner Med. Gesellschaft Meeting, Mar. 7, 1890.

THE author showed a specimen of bulla ossea from a lady twenty-seven years old, who had complete obstruction of the right nostril. The

cavity of this nostril was closed by a red tumour, covered with mucous membrane, consisting of thin bone. By puncture, serum and pus were removed. The bony wall was removed by the forceps. It was situated on the middle turbinated body. Cure. *Michael.*

Hajek (Wien).—*Perforating Ulcer of the Septum. Anatomical and Clinical Study.* "Virchow's Archiv.," Bd. 120, Heft 3, 1890.

THE author has made researches on thirty-eight cases of this disease. The histological examination showed that there is a necrosis beginning in the mucous membrane, and by-and-by destroying this and also the cartilage. As a result of this progressive necrosis a circular loss of substance in the septum remains which can spontaneously recover. The disease is not in any way connected with syphilis or tuberculosis, nor with diphtheria, as is proved in the original paper. It can only be explained by an anatomical disposition of the septum to ulceration.

Michael.

Robertson, W. (Newcastle-on-Tyne).—*A Curious Case of Occlusion of the Choanae.* "Brit. Med. Journ.," Jan. 25, 1890.

THE occlusion was due to the presence of two pale white membranes, one about the centre of the right nares, and the other at its posterior termination. The turbinated bone had completely disappeared. They were successfully treated by the galvano-cautery. The author suggests that the nostril had been the seat of rhinoscleroma, which had become exhausted. *Hunter Mackenzie.*

Herzog (Graz).—*Rhino-laryngological Observations in Influenza.* Mittheilungen des Vereins der Aerzte in Steiermark, 1890.

IN one hundred and fifty cases of influenza the author has observed occasionally an acute serous coryza, in seven cases purulent catarrh of the nose combined with supra-orbital neuralgias. Epistaxis was frequently observed. In the pharynx there was usually a diffuse hyperæmia, also in the naso-pharynx. In one case the author saw an acute inflammation of the pars interarytænoidea with cough simulating that of phthisis. One of these patients was very short of breath. Phthisical patients were very unfavourably influenced by the disease, but in no case was death caused by it. When the influenza itself was cured there often remained catarrhs of the upper respiratory organs. *Michael.*

Wiebe.—*Empyema of the Antrum of Highmore.* "Corresbl. der Aertzliche Verein in Sachsen," 1889, No. 11.

REPORT on the symptoms and treatment of this disease. For diagnostic purposes the author recommends puncture with a Pravaz syringe and Cooper's method of access through the alveolus of an extracted tooth.

Michael.

Panas (Paris).—*Abscesses of the Frontal Sinuses Simulating Independent Lesions of the Orbital Cavity.* Congrès d'Ophthalmologie de Paris, March, 1890.

THE author wished to call attention to the difficulty of diagnosis presented by abscesses of the frontal sinus. This affection, not at all uncommon, has,

however, often been passed over unrecognised. It is well to recall the fact that diathetic affections, tubercles, gummata, all kinds of osteitis, have their favourite situation on the external inferior border of the orbit. Thus, every suppuration having for its site the upper portion of the neighbourhood of the frontal sinus, would immediately awaken suspicion and make one think that possibly an inflammation of this sinus might be the point of origin. He insists, above all, on the fact that empyema of the frontal sinus is not necessarily in communication with the orbit by a fistulous track. It may be added that the degree of development of the frontal sinus varies according to the individual, and that frequently the cavity of the same is prolonged to the external orbital apophysis of the frontal bone. As regards the patients that the author has observed, there was neither ozæna nor any other affection of the anterior nasal fossæ, which would lead one to believe in the possible involvement of the sinus. From this it follows that the presence of such lesions should awaken the possibility of a suppuration of the frontal sinus, but their absence could not be sufficient reason for rejecting such supposition. A symptom which has never been wanting, and which frequently is very severe and long continued, is that of intense pain, complained of by the patient in the course of the infra-orbital and nasal nerves. This is due to the fact that the mucous membrane of the sinus is very richly supplied with special nervous filaments, distributed to it by the trigeminus. *Joal.*

Hansberg (Dortmund).—*The Introduction of Probes into the Accessory Cavities of the Nose.* "Monatschr. für Ohrenheilk.," Nos. 1 and 2, 1890.

THE nature and position of the natural openings of the accessory cavities of the nose is dealt with by the author in a special anatomical study. Beginning with the antrum of Highmore, he has found that in order to introduce a probe (the anatomical details, illustrated by some woodcuts, must be read in the original) the instrument must have a circumference 1 to $1\frac{1}{2}$ cm., a length of 15 cm., and a curvature of 110° . It is introduced after cocaineisation between the middle turbinated body and the external nasal wall. If the middle turbinated body is passed half its length the probe must be turned to the external side, and then introduced. Empyema of the antrum can be easily recognised, because pus will exude from the opening, and if the diagnosis is so determined operation can be performed. In about two-thirds of the cases the introduction of the probe is quite possible. For examination of the frontal sinus the probe must have a thickness of one-half to 1 mm., a length of 30 mm., and a curvature of 125° . It must be introduced between the anterior end of the middle turbinated and the external nasal wall. If the introduction is successful, the probe passes usually through a canal, 12 mm. long, and then can be moved freely. If the length of the portion of the probe introduced is about 60 mm. we may conclude that the introduction has succeeded. If the attempt at introduction does not succeed in an important case, the middle turbinated must be removed. In about two-thirds of the cases probing is possible.

For the cuneiform cavity must be used a probe half mm. thick, and 15 mm. length, curved like a catheter tube. The instrument is introduced

between the middle turbinated and septum ; then directed behind and upwards to reach the anterior wall of the sphenoid bone. If the probe is now turned to the side the opening will usually be found. *Michael.*

Zurllinger (Budapest).—*Bursitis Pharyngea Acuta.* "Pesther Med.-Chir. Presse," No. 10, 1890.

DURING the epidemic of influenza the author saw in some cases, by rhinoscopy, dry yellow-greenish mucus on the pharyngeal wall. If the secretion was removed the opening of the bursa could be seen, and by a probe fluid secretion could be expressed from the bursa. Treatment with solution of nitrate of silver resulted in cure. *Michael.*

Laker (Graz).—*Acute Retro-nasal Affections with Typhoid Symptoms, Local Treatment—Cure.* "Wiener Med. Presse," Nos. 17 and 18, 1890.

THE patient had been ill for some days and was feverish (40°). His tongue was dry and bad. He had meteorism, and enlarged liver, and spleen, and also diarrhœa. He was thought to be suffering from typhoid, because in the street where the patient lodged there were cases of this disease. The examination of the nose showed that the mucus membrane of the nose and the naso-pharynx was covered with dry greenish-yellow secretion, and both cavities of the nose were filled with these masses. The author made an irrigation of a 1 per cent. solution of sodium chloride, by which a great quantity of white, greenish and yellowish mucous was removed, and the patient could then himself snuff out masses of secretion of cadaveric odour. As soon as these masses were removed the patient was relieved, and felt very much better. The temperature went down the same day to 36°, and never again rose to 40°. The author believes there was a septic infection localised in the nose and infecting the whole body. The convalescence was complicated by acute otorrhœa, and lasted more than one month. In the secretion the author found two micrococci, a bacillus, and a capsulated coccus. Both micrococci were inoculated into rabbits, and both animals died from septic infection. *Michael.*

Grünwald (München).—*Technique of Operations for Retro-nasal Tumours.* "Munch. Med. Woch.," No. 20, 1890.

FOR such retro-nasal tumours as are broad-based, and cannot be operated upon by Lange's instrument or by the galvano-cautery, the author recommends the introduction of Belloc's tube with a wire on one side of the tumour, and its reduction by the same instrument on the other side. It is thus possible to place the wire round the tumour. The author relates a case in which he has applied the method with the best results.

Michael.

MOUTH, TONGUE, PHARYNX, &c.

Cerné (Rouen).—*Atrophic Cancer of the Tongue.* Société de Chirurgie, March 9, 1890.

THE author exhibited a rare and peculiar anatomical specimen occurring in a woman, aged seventy-three, who died in the hospital. The specimen was an atrophic scirrhus of the tongue. This organ, which had preserved its ordinary form, was reduced in all its dimensions, and presented very nearly the appearance and size of the tongue of a parroquet. The tongue was invaded throughout by a pavement tubular epithelioma. (Atrophic scirrhus of the old writers). *Joal.*

Limont (Newcastle-on-Tyne).—*Leukoplakia.* "Brit. Med. Jour.," Jan. 4, 1890. Northumberland and Durham Med. Soc., Nov. 14, 1889.

EXHIBITION of a man, aged sixty, the subject of this complaint. There was a history of excessive smoking for forty years. Changes on the tongue had been observed by the patient eight months previously; treatment had been ineffective; now several ulcers were present, and round one there was a suspicious induration. *Hunter Mackenzie.*

Sokoloff, Nil J. (St. Petersburg).—*On Ulcerative Stomatitis.* "Vratch," No. 43, 1889, p. 959.

IN the course of 1888 and 1889, the author came across 13 cases of ulcerative stomatitis in adults, all ending in recovery. Nearly in all, the tonsils and posterior wall of the pharynx were simultaneously affected. The disease usually commenced with intense malaise, vomiting, diarrhœa and fever. In severe cases, the latter lasted during the whole course of the affection, its type on the whole resembling enteric fever, while in mild cases the temperature returned to the normal about the end of the first week. In some patients abscesses under the tongue or in the organ itself were observed; in two, an erythematous (patchy or confluent) rash occurred; in two, albuminuria was present. The liver and spleen remained always normal. The duration of the affection varied between fourteen and fifty-six days. In one case a direct infection was noticed (a patient who was recovering from some grave disease, contracted ulcerative stomatitis from his neighbour). Bacterioscopic examination revealed the presence of ordinary streptococci, but no specific microbes.

Valerius Idelson.

Šimanovsky, Professor Nikolai P. (St. Petersburg).—*On Epidemic Ulcerative Inflammation of the Oral and Pharyngeal Mucous Membrane.* "Vratch," Nos. 1, 4, 5, and 7, 1890, p. 3.

AFTER giving an able sketch of the pathology and clinical course of ulcerative stomatitis, the author proceeds to describe eight cases (referring to five men, aged from twenty to thirty-two, and three women, aged from twenty-three to fifty) which came under his observation during the period, December, 1888, to April, 1889. In two of them

ulcerative stomatitis alone was present, while in the remaining six either the fauces or pharynx, or both, were also affected with a similar ulcerative inflammation. The faucial lesions were usually limited to one side, the ulcers being situated either on the tonsil or on the posterior wall of the fauces (or the mucous membrane covering the lymphoid tissue, which was found to be considerably swollen in such cases). In one of three cases, in which the patient's urine was examined, albuminuria was detected. Bacterioscopic examination of the discharge gave negative results. No direct infectiousness was noticed. The causation of the disease remained altogether obscure. All the patients recovered. The treatment consisted in gargling and painting with a solution of chlorate of potassium (5j to ʒvi of water), or gargling with a two per cent. boracic acid solution, or with salol (two teaspoonfuls of a six per cent. alcoholic solution to a tumblerful of water), or borax.

In an appendix to the paper Professor Simanovsky says that in the course of December, 1889, he met with further six cases of typical ulcerative stomatitis (without any affection of the fauces or pharynx) in adults, in one of which (in a girl of twenty), complicated with influenza, a partial necrosis of the alveolar process of the upper jaw supervened.

Valerius Idelson.

Browne, Lennox (London).—*Elongation of the Uvula as a Cause of Laryngismus.* "Brit. Med. Jour.," Feb. 15, 1890.

THE author points out that, in the case of young children with non-enlargement of the faucial tonsils, elongation of the uvula is due to paresis of the soft palate, which in its turn is almost invariably caused by enlargement of the pharyngeal tonsil (adenoid growths). He expresses the conviction that in almost every case of laryngismus, tetany or convulsions, the subject is a mouth-breather owing to these growths. The author also refers to hypertrophy of the lingual tonsil, and says that when this condition is present in the young, there always co-exists a similar condition of the faucial or pharyngeal tonsils.

Hunter Mackenzie.

Rersting (Würzburg).—*Contribution to the Pathology of the Lingual Tonsil.* Verhandlungen der Medicinisch. Physical Gesellschaft in Würzburg, 1889.

DESCRIPTION of seventeen cases observed in the clinic of Dr. Seifferts, and analysis of the symptoms.

Michael.

Moure.—*Tonsillotomy followed by Serious Hemorrhage.* Société de Chirurgie, April 20.

CASE of a child aged seven, on whom had been performed the operation of tonsillotomy for a considerable hypertrophy of the tonsils, which were the seat of an active inflammation; after the operation, which was performed the same day on the two sides with the instrument of Fashens'ock, only a small quantity of blood escaped; but, in the middle of the night, a severe hæmorrhage of the left side supervened; it was arrested with some difficulty by means of pressure and of iced drinks. Eight days later a similar hæmorrhage occurred without apparent cause, and, on examining the bleeding surface cleared of blood, the existence of

a little eschar was determined. The same day a permanent cure was effected. Although it is not very uncommon to meet with cases of hæmorrhage, consecutive to tonsillotomies, in adults, they should be on the contrary very exceptional in the case of children, for in the researches that Moure has made on this subject, he has not been able to find a single case of such hæmorrhage. The fact which he has recorded is, then, interesting from this point of view ; and, besides, it is instructive as showing that the removal of inflamed tonsils should be avoided, and that it is wise to carefully watch young patients on whom the operation has been performed for some days. *Joul.*

Holst (Jena).—*Hæmorrhages following Tonsillotomy : their Etiology, Prophylaxis, and Treatment.* "Internat. Klin. Rundschau," No. 21, 1890.

SEVERE bleeding after tonsillotomy is happily not a very common occurrence. The carotid cannot be cut, as some authors imagine, but sometimes the pharyngea ascendens is cut if the tonsil is too strongly drawn forward, and the fold between it and the palate is wounded. If the tonsil is very hard from cirrhotic metamorphosis the lumen of the arteries cannot close after excision, and bleeding follows. If it is inflamed when tonsillotomy is performed, parenchymatous hæmorrhages often follow. Some authors believe that tonsillotomies are dangerous, and prefer extirpation with a simple knife. The best prophylaxis is to extirpate only two-thirds of the organ. The danger is less, and the effect the same, because the remaining part atrophies. Slight hæmorrhages are treated by ice and styptics : severe, by the hot iron, or ligature of the carotid. Tracheotomy and tamponing of the pharynx may be necessary. *Michael.*

Quénu.—*Some Untoward Occurrences connected with Tonsillotomy.* Société de Chirurgie, Mar. 7, 1890.

THE accidents connected with tonsillotomy, have, for some time led the author to give up this operation. He has practised a considerable number of times igneous cauterisation of the tonsils, and has never observed any accident. Atrophy always ensued after a short time. Three or four sittings or more, separated by intervals of a fortnight's duration, he has always found sufficient. He adds that it is necessary to employ the galvano-cautery and not the thermo-cautery, because the action of the first instrument is much more limited. He is therefore a supporter of cauterization in the case of the child as in that of the adult. *Joul.*

Schmit (Versailles).—*Primary Carcinoma of the Tonsils.—Sudden Death.* Société de Chirurgie.

THE author read a communication on this subject. It related the case of a man aged seventy-two, without hereditary or diathetic antecedents, in whom a tumour of the right tonsil appeared in October, 1887, which presented the symptomatology of cancer of this organ. Pain, alteration of voice, deafness, dysphagia, hæmorrhage, fetid breath, compression of the vessels of the neck, etc. The patient was found dead in bed a few

moments after he had been heard to cough. The author laid stress on the rarity of primary carcinoma of the tonsil and on the still greater rarity of its termination in sudden death, which has only been observed twice (the case of Richardson and that of Prévau). He then enquired into the different hypotheses which are capable of explaining the death of his patient, and appeared to favour somewhat the hypothesis of death from asphyxia due to the passage into the larynx of a fragment of the tumour detached by the effort of coughing, or possibly to death from bulbar anæmia and syncope produced by the compression which the tumour exerted on the vessels of the neck. *Joal.*

Jacobson, Alexander V. (St. Petersburg). — *On Syphilitic Stenoses of the Pharynx.* "Vratch," No. 17, 1890, p. 401.

REFERRING to the great rarity of severe syphilitic cicatricial stenoses of the pharynx, the author describes two typical cases from his own practice, one of which refers to a gentleman, aged fifty, who had suffered from hard chancre about thirty years previously, had repeated attacks of and suffered from throat symptoms, and lost his voice about a twelvemonth before his coming under the writer's observation. On examination the soft palate, uvula, and tonsils proved to be completely destroyed, their site being occupied by a mass of cicatricial tissue. The hard palate posteriorly presented a perforation leading into the naso-pharynx. Across the space between the root of the tongue and the posterior wall of the pharynx there was stretching an oblique membrane adherent to the posterior pillar, and containing a median button-hole orifice, one centimètre long. The patient was emaciated, his breathing difficult and noisy, speech exceedingly indistinct, and hearing bad; there was also present ulceration of the nasal mucous membrane. All attempts at mechanically dilating the slit having failed, the membrane was incised at several spots, and Schroetter's tube, No. 3, inserted. Fifteen days later the operation was repeated. The patient's state improved to such considerable extent that he could be soon discharged, being directed to practise dilatation by means of a special forceps-like instrument.

The other case is that of a woman presenting similar lesions, with the difference that the orifice in the cicatricial pharyngeal membrane had a circular outline. The patient was breathing with extreme difficulty, and rapidly losing flesh. The treatment consisted in dividing the anterior faucial pillar by means of a thermo-cautery, and a subsequent dilatation of the wound with Schroetter's tubes. Complete relief was obtained.

The author has been able to collect from international literature not more than twenty-six similar cases. Dr. Sokolowski, of Warsaw, is said to be the only Russian (or rather, Polish) observer who has published a paper on the subject with the notes of two cases. [In the JOURNAL OF LARYNGOLOGY AND RHINOLOGY, April, 1890, p. 158, Dr. Colcott Fox's case may be found, referring to a girl of fourteen with hereditary syphilis.—*Reporter.*]

Valerius Idelson.

Robertson, William (Newcastle-on-Tyne).—*Adhesion of Soft Palate to the Posterior Wall of Pharynx.* "Brit. Med. Jour.," Feb. 15, 1890. Northumberland and Durham Med. Soc., Jan. 9, 1890.

EXHIBITION of a woman with this peculiarity, without any specific history. The adhesions were treated by the knife, and the patient was now wearing a small perforated vulcanite plate, with benefit.

Hunter Mackenzie.

Ehrmann (Wien).—*Pharyngeal Sclerosis acquired by Feeding Syphilitic Children.* "Wiener Med. Woch.," Nos. 18 and 19, 1890.

1. A PATIENT, fifty-eight years old, fed a syphilitic girl, and often took the spoon with the food into her mouth to determine if it was too warm. She related that four months ago she had an affection of the right tonsil, which was very painful and accompanied with great swelling of the organ. There was also a very much enlarged gland in the neck. Extirpation of the tonsil at that time was proposed but not allowed by the patient. There is now a cicatrix on the tonsil, plaques in the mouth and on the vulva, and a syphilitic exanthem. Cure by anti-syphilitic treatment was obtained.

2. A girl, sixteen years old, nurse in a family where husband, and wife, and a child were under treatment for syphilis, got a feverish condition of the throat. A physician believed it to be diphtheria. The left tonsil was transformed into a cone, on the surface of which was an ulcer with a sharply defined loss of substance. The glands of the neck were swollen. The patient had fed the child. Examination showed that she was a *virgo intacta*, and had no signs of syphilis on the body. The primary affection was cured by local treatment. Some weeks later roseola, psoriasis palmaris and plantaris followed. Cure was obtained by inunctions.

Michael.

Lettrille.—*Severe (Esophageal) Hæmorrhage.* Société Anatomique, March 19, 1890.

THE author showed microscopical sections of an œsophagus from a case of severe hæmorrhage of this organ. The hæmorrhage, which caused death, proceeded from the surface of small ulcerations in whose floor lay a dilated vessel of the mucous membrane; there were also numerous other vascular dilatations. The layers of the œsophagus were not in other respects altered; this tube presented throughout its extent enormous dilatation. M. Lettrille thinks that the case was one of congenital dilatation.

Joal.

Antonoff, Vladimir E. (St. Petersburg).—*Case of Perforation of the (Esophagus) by a Swallowed Bone.* "Bolnitchnaia Gazeta Botkina," No. 13, 1890, p. 306.

THE writer details the case of a robust peasant, aged thirty, a habitual drinker, who was admitted to the Alexandrovsky Pavilion Hospital on account of intense diffuse pain about his chest; cough, with scanty expectoration, difficult breathing, anorexia, fever, and general weakness. According to the man's statements, a week previously, when, being moderately intoxicated, and eating *shchi* (cabbage soup, a Russian national dish), with meat, he accidentally swallowed a "tiny" piece

of bone, which had stuck in his throat, causing considerable pain, but then somehow "passed down." On the next day the said symptoms appeared to steadily go from bad to worse. On examination of his chest nothing beyond bronchitic râles could be detected, but on the next day (eighth after the accident) prolonged expiration, and, on the subsequent one, dullness below the right scapula made their appearance, the patient suddenly expectorating a tumberful of fœtid, rusty sputa. On the ninth day after the accident the man died from increasing difficulty of breathing and cardiac failure.

At the necropsy there was found a flat, triangular, sharp-edged piece of bone, three and a half centimètres in its largest diameter, fixed in the gullet just above the right bronchus, the right and left œsophageal walls at this level being ulcerated and perforated. The right perforation communicated on one side with the adjacent lung, the lower lobe of which was affected with disseminated gangrene, and on the other with the trachea, on the posterior wall of which, two centimètres above the bifurcation, there was found a circular clean-cut hole. Each pleural cavity contained about one pint of turbid serum, the walls being lined with a thin fibrinous coat.

Dr. Antonoff justly observes that any attempt at sounding the œsophagus under such circumstances would necessarily accelerate perforation of the organ and a fatal issue. *Valerius Idelson.*

LARYNX.

Hermann (Zürich).—*Phonoto-photographic Studies*. "Pflüger's Archiv." Bd. 45, pp. 582.

THE author has produced in an ingenious manner photographic curves of the motion of a light produced by singing. *Michael.*

Rosbach (Jena).—*Contribution to the Localisation of the Cortical Voice Centre of Man*. "Deutsch. Archiv. für Klin. Medicin," B. 46, Heft 2.

THE author refers to the cases of paralysis of the vocal cords by cerebral affection recently published, and adds one case occurring in his own practice. The patient, fifty-six years old, suffered from apoplexy, followed by unconsciousness during half an hour, and some weeks later, by paralysis of arms and legs. She spoke with an aphonic voice. The laryngoscope showed the left vocal cord immobile in the cadaveric position. The mobility of the right cord was somewhat diminished. Four weeks later death ensued. The *post-mortem* examination showed in the insula of the right cerebral hemisphere only a small part of the upper gyrus intact, the greater portion of it being destroyed; the anterior part of the insula and gyrus was intact. There were also in the cerebrum other pathological processes by which the different symptoms were explained. The author speaks at length on the possible different causes of the vocal paralysis, and concludes that it must be produced by the affection of the

insula, and that probably the insula is the centre for the movement of the vocal cord. The insula is situated between the centre for speech in the lower portions of the central gyri and the acoustic centre in the superior temporal gyrus, both of which are in near relation to the voice. The case also proves that each vocal ligament has only a unilateral innervation, because a unilateral affection can only produce paralysis of it. The illustration of the specimen is added. *Michael.*

Von Meyer (Zürich).—*The action of the Muscles of the Glottis.* "Archiv. für Anatomie," 1890, pp. 427.

THE dilators of the glottis are also antagonists of the compressors, and so both together produce the different modifications of tension which is necessary for modulation of the voice. *Michael.*

Livon, C (Marseilles).—*Physiology of the Glottis.* Société de Biologie, March 30, 1890.

THE author communicated the results of his researches on the action of excitation of the recurrent nerves on the glottis. According to his experiments, illustrated by very clear, graphic tracings, feeble or moderate excitations of eighteen to twenty interruptions in the second, cause rhythmical contractions of the glottis, with dilatation. If, the current preserving the same intensity, the rhythm is increased twenty-five to thirty, or above, in the second complete closure is immediately produced. These results are always the same, although the rhythm or intensity of the current may be varied during the same experiment. Thus it is possible, by modifying the rhythm of the excitation applied to the recurrent nerves, to obtain distinct effects either of dilatation or of occlusion. But dilatation is always produced with muscular contractions isochronous to the excitations. *Joal.*

Marano, S.—*Hæmorrhagic Laryngitis and Influenza.* "Archivii Italiani di Laringologia," 1890, May 2.

THE hæmorrhagic character of many diseases of mucous membranes in consequence of influenza, such as rhinitis, pharyngitis, otitis, was also found to be present, by Marano, in some cases (three) of laryngitis. It is also worthy of note that with hæmorrhage was present dysphagia, on account of the swelling of the mucous membrane of the arytenoid cartilages. *Massei.*

Mantle, Alfred (Durham).—*The Causes of Laryngismus in Young Children, with Special Reference to its Production by Elongation of the Uvula.* "Brit. Med. Journ.," Feb. 8, 1890.

THE author remarks upon the subject of laryngismus, and narrates the case of a rickety child, who suffered from attacks of this complaint for four months, the cause having been irritation by an elongated uvula: this induced spasm of the larynx, and eventually general convulsions. Removal of the uvula was followed by recovery. *Hunter Mackenzie.*

Morison, A. E. (Newcastle-on-Tyne).—*Acute Inflammatory (Edema of Larynx.* "Brit. Med. Jour.," Jan. 4, 1890. Northumberland and Durham Med. Soc., Jan. 4, 1890.

EXHIBITION of specimen taken from a patient who died four hours after the performance of tracheotomy. *Hunter Mackenzie.*

Pilate.—*Acute Œdema of the Larynx Occurring in the Course of an Attack of Mumps.* Société Médicale de Marseilles, April, 1890.

ACUTE œdema of the larynx is not, by any author, regarded as a possible complication of mumps; it would appear, however, difficult to admit that inflammation of the parotid gland has not played an important part, if it has not been the direct causative agent, in the pathogeny of the following case of œdema of the larynx.

The case was that of a man of twenty-nine, vigorous, but who, at the time when he was attacked by mumps, was convalescent from a series of attacks of ague. On the sixth day of the attack of mumps, which in his case was well marked, this patient was seized with an œdema of the larynx, running a very acute course—an œdema which, in a few hours, necessitated the performance of tracheotomy. The canula was removed after four days; all symptoms had then disappeared, and the cure was complete. It may be added that before the appearance of œdema of the larynx there was merely a little redness of the throat, without true inflammation. M. Pilatte does not maintain that the attack of mumps was the only and immediate cause of the œdema of the larynx; he admits as possible the influence of the sore throat, slight as it was; but it is probable that the sore throat would have run its course without complication had not the parotitis occurred. When the parotid (he says) acquires a considerable size it is certain that it may exercise pressure on the large venous trunks of the neck, and particularly on the external and internal jugular veins, but it is to the latter vein that the veins of the larynx carry the blood from the same. This arrangement renders the occurrence of venous stasis easy in the larynx, and in cases of simple sore throat the presence of parotitis favours the production of œdema. *Joal.*

Garré.—*Lupus of the Introitus Laryngis. Operation by Pharyngotomia Subhyoidea.* "Beitrag zur Klin. Chirurgie," Bd. 6.

A GIRL, twenty-eight years old, had an affection of the base of the tongue for one year. The disease began as a warty growth and spread to the palate, epiglottis, ary-epiglottic ligaments and the arytenoid cartilages. After tamponing the trachea, the author extirpated all diseased tissue by pharyngotomia subhyoidea. Cicatricial stenosis was prevented by transplantation of mucous membrane of the circumference. Feeding by enemata was adopted, and some days later by a tube. Cure resulted. *Michael.*

Huguin.—*Ictus Laryngæ.* Union Médicale du Nord-Est, March, 1890.

THE case of a patient who was suddenly seized at the termination of a sociable repast; he rose abruptly from the table, turned his back to the guests, and with his right hand made them a sign to be silent; all at once he stumbled, and fell like a log. Almost immediately the sick man began to laugh, asking what his friends meant by hurrying to his assistance. He ignored the fact of losing consciousness for some

moments : he only remembered that he experienced an extremely severe pain in the throat. A quarter of an hour later the patient was able to get into a carriage and to return home, having entirely recovered.

Two months later, about eight o'clock in the evening, the same individual, returning from a short journey, arrived at home quite well, sat down at table, ate with good appetite, then, suddenly feeling unwell, as he informed his wife, he threw himself upon a couch, lost consciousness, and died in a few seconds. Is this a case of *ictus laryngé*, causing a mild and fleeting crisis in the first attack, and causing death in a new paroxysm? M. Huguin does not give an opinion, being uncertain whether death was produced by a cerebral or cardiac lesion, an autopsy not having been made. But by him, being present when the first attack occurred, the symptoms were regarded as those which are characteristic of *ictus laryngé*.

It should be added that the case was that of a man of forty-four, leading a very active, sober, and regular life. He had never had gout or rheumatism ; but only slight manifestations of a cutaneous arthritis.

Joal.

Rast.—*Hysterical Mutism.* Aerztlicher Verein in Hamburg. Meeting, June 17, 1890.

THE patient, a married woman, was attacked suddenly as she was before the judge. It was believed to be simulated, and, therefore, the patient was sent to the hospital. There were also other signs of hysteria. The patient had the disorder a second time and simulation could be excluded. The case shows the forensic interest of the disease.

Michael.

Raymond.—*Syphilis of the Air Passages.* Société Médicale des Hôpitaux, Mar. 2, 1890.

THE author showed the pathological specimens from a man admitted under his care. This man, fifty-two years old, had contracted syphilis eight years previously, and, on his admission, still presented marked cutaneous lesions. Moreover, he suffered from aphonia, laryngeal stridor, and high fever, with dyspnoea. There was dulness over the two pulmonary bases, and a slight effusion at the right. The liver was tender. Death from syncope the fourth day after admission. At the autopsy the epiglottis was healthy ; the vocal cords were slightly oedematous ; the laryngeal cartilages ossified. The trachea was studded with small gummata, extending to the bifurcation of the bronchi. On the side a gumma was visible, the size of an egg, compressing the pneumo-gastric and deforming the trachea, whence the stridor heard during life. Further, there was a double broncho-pneumonia without tubercular lesion. The lips were the seat of numerous gummata.

Joal.

Sokolowsky (Warschau).—*Contribution to Pathology and Therapy of Laryngitis Sub-Glottica Hypertrophica Chronica.* "Internationale Klinische Rundschau," No. 19, 1890.

Case 1. The patient's breathing became embarrassed a year ago during typhoid, and tracheotomy was performed. A canula has been

worn since the operation. The laryngoscope shows under the glottis a blue-red diaphragm, with a little hole in the middle line. The author believed that there was a membranous web, but incisions were without result. By treatment with Schroetter's dilatator during ten months, the canula could be removed. But two weeks later a second tracheotomy was necessary. Now laryngotomy was performed. The mucous membrane under the vocal ligaments was thickened and assumed the appearance of two folds. The folds were removed, and the bleeding which ensued was arrested by burning with Paquelin's cautery. Introduction of Koehl's canula. After-treatment consisted in the use of Schroetter's cannula. Cure. Removal of the canula. The microscopical examination showed a marked hypertrophy of the mucous membrane.

Case 2. A patient, aged twenty-seven, suffered for six months from embarrassed respiration. He had also obstruction of the nose. The examination showed hypertrophy of the turbinated bodies, and chondritis inferior hypertrophica. Cure by Schroetter's dilators and galvano-cautery of the nasal mucous membrane.

Case 3. A patient, fifty-four years old, has the same condition of the larynx, and has suffered from dyspnœa for four years. Improvement by dilating treatment.

Case 4. A girl of eighteen years suffered from aggravated dyspnœa, so that tracheotomy was necessary. The laryngotomy following showed hypertrophy of the sub-glottic mucous membrane. Treatment by dilators during a half year without any result.

Concerning the treatment the author believes that Schroetter's method of dilatation is a very good one, but that for severe cases it must be combined with the surgical treatment by laryngotomy and destruction of the membranes.

Michael.

Sommerbrodt (Breslau).—*Typical Pachydermia of the Larynx*. "Berl. Klin. Woch.," No. 19, 1890.

DURING twenty years the author has observed eighteen cases of this remarkable disease ignored for so long by laryngologists. He relates his cases, gives the laryngoscopical appearance of two cases, with the characteristic deformation of the arytenoid cartilages, and then speaks of the nature of the disease. In seventeen cases out of eighteen, the disease was bilateral. In all cases the patients were men. Etiological causes are found in abuse of tobacco, alcohol, and damp dwellings. At first the disease is not easily distinguished from chronic catarrh with ulceration, and, later, from perichondritis and malignant tumours. The prognosis is favourable. The disease may be present some years without great danger to the patient. The voice may remain pretty good, or can improve in time. An efficient treatment is not known up to the present time.

Michael.

Thost (Hamburg).—*On Papillomata of the Upper Air Passages*. "Deutsch. Med. Woch.," No. 20, 1890. (Cf. the Report of the 62nd Versammlung Deutscher Naturforsch in Aerzte.)

Michael.

Rupprecht (Dresden).—*Laryngofissure on account of Papillomata on the Left Vocal Cord in a Girl, aged Four.* "Jahresbericht der Gesellsch. für Natur und Heilkunde in Dresden," 1889.

TRACHEOTOMY was performed for impending asphyxia. Fourteen days later the operation of laryngo-fissure was performed for extirpation of the neoplasms. The larynx was not sewn. Some weeks later the canula was removed. Cure, but with roughness of voice remaining. *Michael.*

Bardenhewer (Röln).—*Propositions concerning Extirpation of the Larynx.* "Deutsch. Med. Woch.," No. 20, 1890.

CLEANSING of the cavity of the mouth with a brush before operation; inclined position of the head during after treatment. *Michael.*

Horaczek (Mindelheim).—*On the Existence of Membranes, especially Membranous Concretions in the Larynx.* "Inaugural Dissertation," Würzburg, 1890.

REPORT of a case of patient, twenty-two years old, affected by hereditary syphilis, which was followed by membranous concretion of the vocal bands. Only a small chink in the posterior portion of the glottis remained. Extirpation of the membrane. Cure. *Michael.*

Jacobson, Alexander V. (St. Petersburg).—*On the Treatment of Membranous Stenosis in Region Sub-Glottica.* "Medizina," No. 1, 1890, p. 7.

THE author details the following interesting and very instructive case, successfully treated after an endo-laryngeal method. A male peasant, aged forty-one, who had cut his throat with suicidal intentions in August, 1886, was admitted to the Rojdestvensky Pavilion Lazaretto, on October 29th, 1888, with complaints of severe dyspnoea occurring on any exertion, extreme hoarseness, and difficult speech. On examination there was found a respiratory fistula, situated just below the inferior edge of the cricoid cartilage, and surrounded with cicatricial tissue. On its two sides there was seen an old transverse scar, running from one sterno-mastoid muscle to the other. The left vocal cord was fixed in the median position, considerably thickened, of yellowish-white colour, and a mucoid appearance. About two centimetres below the cords there was present a ring-shaped membranous diaphragm, stretched across the sub-glottic space, and containing an orifice of about 1 centimetre in diameter. Slightly above the diaphragm there could be detected another similarly shaped membrane, but with a much wider opening. The treatment adopted consisted in catheterisation of the larynx with Schroetter's tube No. 2 after painting with a four per cent. solution of cocaine for fifty days, with subsequent cauterisation of the upper and division of the lower membrane by the galvano-cuttery (after painting with a fifteen per cent. solution of cocaine), two sittings at an interval of twenty-four days, and another course of Schroetter's dilatation with tubes Nos. 3, 4, 6, and 7, for about three months. Under the treatment the patient's breathing gradually became quite free, some dyspnoea occurring only on brisk walking. The left cord remained fixed (in consequence of ankylosis), but the membranes disappeared, the only trace left being some small-sized folds. The patient's breathing remaining normal for five months after discontinuing

the treatment, the large cervical fistula was closed by broncho-plastic operation after the author's method (as described in the "Vratch," No. 34, 1884, and Langenbeck's Archiv., Vol. XXXIII., p. 3). Recovery proved to be permanent.

Analysing his case, the writer points out that (1) traumatic membranous stenoses of the larynx and trachea are comparatively very rare; (2) their treatment is difficult, its results often unsatisfactory; (3) an endo-laryngeal treatment of membranous stenoses (of any origin) should be always preferred to laryngo-fissure, since (a) endo-laryngeal operations are void of any danger; (b) they are by far less formidable, and hence are better borne by the patient; (c) they do not require chloroform anæsthesia, which by itself is associated with certain dangers; (d) they may be performed without trained, or in fact, any assistants; (e) they may be repeated as frequently as desirable, without causing any special discomfort to the patient; and (f) they give better results regarding recovery of function.

Valerius Idelson.

Cassaet.—*Contribution to the Study of the Entrance of Air into the Veins during the Performance of Tracheotomy.* Société d'Anatomie de Bordeaux, March, 1890.

A YOUNG man of twenty-nine, suffering from tubercular disease of the larynx, leading to stenosis, had tracheotomy performed, air entered the veins, death did not ensue until three hours later. The case is interesting inasmuch as it shows that air can enter the superficial veins. The patient at first suffered from no other symptoms than weakness and compressibility of the pulse. Auscultation of the heart was practised at leisure, and it was discovered that the maximum intensity of the hydro-ærial murmur was present at the site of the tricuspid valve. It was at the moment when the air bubbles, leaving the right side of the heart, gained access to the lung that the distress in breathing declared itself.

Joul.

Ekel (Budapest).—*Foreign Body in the Trachea.* "Pesther Med.-Chir. Presse," No. 30, 1890.

A GIRL, eight years old, inspired a fruit stone. Attacks of cough and suffocation followed. The noise of a moving foreign body could be heard. Tracheotomy was performed, followed by introduction of a probe. The foreign body was coughed out. Pneumonia followed, but eventually cure was obtained.

Michael.

Sleep, Frederick (Plymouth).—*Foreign Bodies in the Air Passages.* "Brit. Med. Journ.," Jan. 25, 1890.

A CASE in which the vertebræ of a rabbit had been drawn into the air passages, and coughed up five and a half months subsequently.

Hunter Mackenzie.

Laryngologische Gesellschaft zu Berlin. Meeting. March 21, May 2, and June 6, 1890.

Dr. SCHOYLER showed a *needle attached to a feather which he extracted*

from the trachea of a girl of nineteen. It had been aspirated and could not be removed by traction on the feather. The laryngoscopic examination showed that it was fixed with one end on the bifurcation of the trachea, and with the other on a tracheal ring. It was possible to liberate the needle by a probe introduced between it and the trachea. After operation, the patient was quite well.

DR. LUBLINSKI called attention to *the diseases of the upper air passages in influenza*. He has observed hæmorrhagic rhinitis, phlegmonous angina, croupous membranes on the tonsils, and the pharyngeal wall, also laryngitis, with intense redness of the vocal cords, laryngitis subglottica and laryngitis hæmorrhagica, during convalescence.

DR. KRAKAUER had not observed hæmorrhages of the air passages, but often the hæmorrhagic otitis described by Loewenberg and Michael.

DR. LANDGRAF saw in two hundred and ten cases only one case of rhinitis, but sometimes swelling of the inter-arytenoid fold and œdema of the larynx.

DR. B. FRAENKEL has observed white patches on the vocal cords, which had not been produced by loss of the epithelium.

DR. LANDGRAF showed a case of *sarcoma of the palate*, in a patient, aged twenty-eight. Operation not being possible, electrolysis was about to be tried.

DR. LUBLINSKI showed an *instrument for application of trichloroacetic acid*, and another *instrument for elevation of the epiglottis*.

DR. B. FRAENKEL showed a patient *with an osseous bulla of the middle turbinated bone*. Compare the report in this Journal.

DR. PELTESOHN calls attention to hysterical mutism, described by Solis-Cohen as apisythysia. The patients cannot produce any sound. They are absolutely dumb. The prognosis is favourable. As it is a central disease, the treatment must consist in application of psychic medicaments and improvement of the constitution. Sometimes electricity and massage and local laryngeal treatment are efficacious.

DR. LANDGRAF recorded *two cases of hysterical mutism*. One of them had marked hysteria and hemi-anæsthesia. Cure by faradisation. In the second case, consecutive to an ebullition of anger, the patient became dumb, then aphasic for some days, and then was cured.

DR. P. HEYMANN showed a patient, aged twenty-one, *with sarcoma of the naso-pharynx*. The tumour could not be removed by operation.

P. HEYMANN showed a specimen of *nasal polypus from a child of one year*.

DR. PILLAUF showed specimens of injections of cats and rabbits, *illustrating the relation between nasal lymph channels and the sub-arachnoidal space*.

DR. ROSENBERG recorded two cases of *œdema laryngis following the use of iodide of potash*. In both cases merely small doses of the drug were employed. In all cases treatment must commence with very small doses.

Michael.

THE author showed a patient who coughs up gangrenous sputa. He also coughs up feathery masses of fifteen centimètres long, of unknown constitution. Schroetter believes that these are foreign bodies causing gangrene. *Michael.*

Courby.—*Calcareous Concretions in Fits of Coughing.* Société Médicale des Hôpitaux, Mar. 28, 1890.

THE author showed two somewhat large calcareous concretions expectorated during a paroxysm of coughing by a phthisical patient (quiescent form). These concretions recall those that are occasionally found in inactive tubercular aggregations of the lung or of the bronchial glands. In the case brought forward, the existence of retro-sternal pains, which were persistent and very localised, and the absence of the signs of advanced pulmonary tuberculosis, led M. Courby to think that the calculi originated in a peribronchial gland. *Joal.*

REVIEWS.

Cyclopædia of the Diseases of Children. Edited by JOHN M. KEATING, M.D. Vol. II. Philadelphia: J. B. Lippincott Company, 1889.

THE second volume of this most exhaustive work is a veritable treasure house for the laryngologist. About seven hundred pages are given to discussion of diseases of the throat and chest, containing the most advanced thought of those who have the right to speak with authority.

The first chapter in Part III. of this volume is a Study of Nasal Obstruction, by Dr. John N. Mackenzie, of Baltimore. Few men write attractively, and very few are both classical and erudite, but this author excels in these respects. In the beginning of the chapter we are reminded that "when God made man, it was not into his mouth but into his nostrils that He breathed the breath of life," and that the nose is something more than the organ of smell. The etiology of nasal obstruction, always an interesting study, here receives particular attention, and nothing of value, from Caius Plinius to 1889, seems to have escaped notice. Among the most frequent causes of obstruction are a departure from the normal position of the middle turbinated bone, a deflection or dislocation of the vomer, or perpendicular ethmoidal plate, and as shown by Zuckerkandl, "an oblique, rounded, bony ridge, sometimes at the junction of the vomer and ethmoid, but usually in the bony portion of the septum." Growths of the nasal passages are infrequent in young children, but obstruction of one or both nostrils from dislocation or malposition of the septum is a common accident. The "obstruction of patency," paradoxical as the term may be in the abstract, well indicates that condition of nostril where, from abnormal widening, the current of expired air is compara-

tively feeble, and the removal of secretion from a membrane which is often diseased is more difficult. The evil effects of nasal obstruction are carefully detailed, as also the differential diagnosis of the many causes of obstruction. We wish that the author's methods of treatment had been more fully given, though this has been well done by those who follow him.

The subject of Reflex Cough has received much care at the hands of Dr. A. W. McCoy, of Philadelphia, and although his work has been condensed into the space of less than five pages, it is a full presentation of what is known of the causes of this often troublesome phenomenon.

The chapter contributed by Dr. E. C. Morgan, of Washington, is upon Epistaxis. In the large majority of cases—one hundred and twenty-six out of one hundred and thirty-six, our author says—the visible source of hæmorrhage from the nostril is an erosion or ulceration of the mucous membrane of the septum. The conditions in which the more serious hæmorrhages occur are well presented. We fully approve the writer's statement "founded on experience, that great injury has resulted from the adoption of hasty and heroic treatment in certain cases of epistaxis," and he ventures to suggest the *sero sed serio* regime in appropriate patients.

Dr. D. Bryson Delavan's short paper upon Foreign Bodies in the Nose is a plain practical statement of the subject, the writer laying special stress upon the necessity for care in any attempt at removal of the intruding substance, lest pain and inflammation be excited. The chapter closes with the study of the distressing condition resulting from the deposit of the eggs of various kinds of flies (natural order muscidæ) with careful direction for treatment.

The chapter upon Tumours of the Nose is also written by Dr. Delavan, as is a shorter chapter upon Tumours of the Naso-Pharynx. One among the many interesting statements made by the author is that the easiest method of distinguishing mucous polypi from hypertrophy of the mucous membrane covering the middle or lower turbinated bodies, is by the application of cocaine. Under its influence, the hypertrophied mucous membrane shrinks while no apparent effect is produced in the polypi. This simple procedure is not only of value as regards diagnosis, but is in the direct line of successful treatment by evulsion, abscission, or the galvano-cautery.

In the chapter upon Congenital Syphilis of the Nose, Dr. F. H. Bosworth makes a careful distinction between inherited disease and those conditions which may be acquired at birth from an existing lesion in the genital passages of the mother, which may not differ greatly from the ordinary type of the disease. The description of the effects of inherited syphilis is very complete, and it is shown that in children the disease in the nose runs a rapid course, "but still adheres to the same rules which govern the manifestations of syphilis in the adult."

Croupous Rhinitis, as described by Dr. Bosworth, bears a close resemblance to diphtheria affecting the nasal passages, and there are many who fail to find any points of essential difference. The author believes that in the former we have to do with an inflammation, characterised by a

deposit on the external surface of the mucous membrane of a fibrinous exudation, while, in diphtheria, the false membrane not only lies upon the surface, but infiltrates the tissues of the mucous membrane down to its deeper layers. Except for this difference, and that the exudation is soft and friable, it is difficult to see in what respect croupous rhinitis is not diphtheria. Dr. Bosworth believes that the croupous exudation is the local evidence of a general disease, and that it is due to the deposit of a germ upon the surface of the mucous membrane, which, making its way into the blood, gives rise to the general condition, at the same time exciting the croupous inflammation at its point of entrance. The microscopical appearance of the croupous exudation resembles that which is found in the membrane of mild cases of diphtheria, the symptomatology is much the same, and the treatment recommended—iron and mercurials—is also good medication for the latter disease. A differential diagnosis is possible doubtless, but the dividing line is often hard to distinguish.

The same author contributes the chapter upon purulent rhinitis of children. The interesting clinical fact is mentioned that inflammatory processes, not only of the mucous membrane but also of other tissues of the body, in children show a tendency to involve the epithelial structures, while in adult life this tendency seems to disappear and the connective tissue structures are liable to be involved by inflammatory action. This is strikingly evidenced in diseases of the upper air-passages. The disease is amenable to treatment, provided the stage of crust-formation has not been reached, which indicates that the deeper structures are invaded. We are glad that in the directions for cleansing the nose, which are so important in this disease, the author recommends mild solutions, and the use of simple instruments. It is always well to avoid harsh measures and much machinery, if possible.

Acute Coryza is the subject of a well-written chapter by Dr. Carl Seiler of Philadelphia, in which, though there is little that is new, there is much that is practical. His rather voluminous formula for an antiseptic solution for spraying the nose, has since this book was issued, been made the basis of an antiseptic pastile, which is a most convenient and useful addition to our list of local remedies. The writer's directions for meeting the general indications which are almost always present, are most excellent, but we would add, or rather in cases where the febrile disturbance is not great, substitute for other drugs, repeated but very small doses of belladonna, which by its influence upon the vaso-motor system, will often quickly diminish the most prominent symptom of coryza, viz., the watery discharge.

Dr W. C. Jarvis, of New York, is the writer of the chapter upon Rhinitis Hypertrophica. The main pathological feature of this affection is the series of changes in the turbinated bodies resulting in increase of the epithelial layer, thickening of the cellular tissue, excessive formation of connective tissue and dilatation of the cavernous sinuses. The principal end to be accomplished is the removal of these hypertrophies, and for this the author prefers the cold wire snare. This is certainly better than the galvano-cautery in that there is less of the cicatricial contraction incident to the healing of the burned furrows. The author urges the

importance of correcting deflection of the septum in childhood ; "the golden opportunity to nip a catarrhal process in the bud."

Dr. Ingals, of Chicago, has written most concisely upon Diseases and Injuries of the Pharynx, for he discusses some twenty pharyngeal affections in less than a score of pages. The science of condensation when applied to medical literature becomes an art of no mean degree, especially when there is neither angularity nor dryness in the result. While most of the conditions affecting the pharynx are but briefly outlined, yet the more important ones, such as acute and chronic follicular pharyngitis, receive more attention. The author, largely by his own researches, has added acute rheumatic sore throat to the catalogue of pharyngeal diseases, where it certainly has a permanent place.

We wish that space permitted more than a mere mention of the chapter upon Diseases of the Tonsils by Dr. Beverly Robinson, of New York. It is one of the most satisfactory essays upon this subject that we know of, for while the author is logical he does not confine himself to well worn paths. He makes the statement that the function of the tonsils—a vexed question of yesterday—is two-fold : 1st, they secrete a considerable amount of clear viscid fluid for lubrication of the bolus ; and 2nd, that these glands serve a purpose in the economy similar to that of glands analogous in structure, as the lymphatic ganglia, spleen, thymus, etc., *i.e.*, they modify notably some of the constituents of the blood and aid in the formation of white blood corpuscles. Special care has been taken to mark the difference between acute tonsillitis and the local manifestations of diphtheria and scarlatina, while as regards its dependence upon a rheumatic condition, though undoubted in some cases, yet in others, no pathological connection of importance can be discovered. The considerations of the treatment of acute tonsillitis are presented in the author's well-known thorough manner and leave nothing to be added. Twenty-two pages are given to the subject of chronic enlargement of the tonsils, and more than half of this space is occupied by the discussion of the treatment. In all obstinate cases the author recommends removal by the guillotine, or where hæmorrhage is feared, the cold wire snare may be substituted, which is preferred to the incandescent loop. While severe hæmorrhage after operation is infrequent and well authenticated records of fatal results difficult to find, yet Dr. Robinson insists that the operator be guarded against the possibility of serious result.

Adenoid Growths at the Vault of the Pharynx is the subject of the chapter written by Dr. Harrison Allen, of Philadelphia, which contains about all that is known of such neoplasms, and is well arranged. From his own careful researches, the author suggests that the fact that the growths originate before the synchondrosis between the basilar process of the occipital bone and the body of the sphenoid bone has closed, renders it probable that some connection exists between the two conditions. He states, however, that the hypothesis is unsupported by clinical facts. For the removal of these growths the writer prefers the unguarded finger, by which, when properly introduced behind the velum, the masses may be pressed against the bony vault and so destroyed. Instrumental aids are secondary to the use of the finger.

The essay upon Stenosis of the Larynx by Dr. Sajous, of Philadelphia, is limited to the consideration of the etiology and diagnosis of this condition, as it is not intended that the differential diagnosis, prognosis and treatment of the several diseases which cause stenosis should be here discussed, but rather in the chapters in which these are described.

The only non-American who has written for the *Cyclopædia* is Sir Morell Mackenzie, who contributes the chapter upon Tumours of the Larynx, and this gives another evidence of his warm sympathy for American workers. From his own notes of over four hundred cases, Dr. Mackenzie believes that the proportion of children who suffer from laryngeal growths is much higher than has hitherto been supposed, and that, in nearly half of the cases of laryngeal growths met with, the patients will be found to be children. In thirty-four cases of laryngeal growths in children the author found that twenty-nine had papilloma and five were of fibrous structure. Dr. Mackenzie points out the great frequency of an alteration of the voice as a symptom of laryngeal tumour, this existing in ninety-two per cent. of all his cases, and in fifty-two per cent. it was the only symptom. Papillomata are most frequently found at the anterior commissure of the vocal cords, or on the ventricular bands, while fibromata are most often situated on the vocal cords. The younger the child the more unfavourable the prognosis, owing to the fact that the parts are smaller and more likely to take an acute inflammation from irritation from interference with, or even the presence of, the growth. The tendency of papillomata to return also affects the prognosis. The only safe palliative treatment is tracheotomy, especially if the breathing be embarrassed, and for radical treatment by endolaryngeal methods the author prefers rectangular forceps somewhat more delicately made than his forceps for adults. Local anæsthesia by means of cocaine is advised, but chloroform narcosis is useless. Fortunately, the extra laryngeal methods are seldom called for and never indicated unless life is in danger.

Dr. W. P. Northrup, of New York, contributes three articles upon Spasmodic Laryngitis, Pseudo-Membranous Laryngitis, and Intubation. We are glad that the writer does not give much time to the discussion of the question of the identity of croup and diphtheria. He modestly states his belief that it is not possible to distinguish purely local croupous laryngitis from mild laryngeal diphtheria, and that it is therefore advisable to consider all cases of membranous laryngitis, not caused by trauma, as of diphtheritic origin. In considering the complication of broncho-pneumonia, which is so often found with laryngeal diphtheria, the author quotes the following interesting conclusion from investigations made last year [Prudden and Northrup, "*American Journal of the Medical Sciences*," 1889]. "The acute lobular and broncho-pneumonia which is apt to complicate diphtheria in the upper air passages in children is, as found in the seventeen cases we examined, a form of inspiration pneumonia, induced by the streptococcus diphtheriæ which finds access to the lungs from the foci of diphtheritic inflammation in the air passages above." The author concludes this most excellent paper by giving plain practical suggestions as to treatment.

Mercuric chloride in repeated small doses is advised, and also the old reliable tr. ferri. chlor. Alcoholic stimulation and benzoate of soda justly have a place in the writer's list of agents for good in this disease. Potassium chlorate has lost its favour; why it was ever used is one of the mysteries of the practice of medicine. The inhalation of steam, medicated or not, is favourably spoken of, and this will be endorsed by most of those who have had experience with membranous laryngitis. The chapter upon Intubation by Dr. Northrup, is mainly a history of the operation of Bouchut, as modified and improved by O'Dwyer, and the author's very full directions for inserting the tube. This procedure has largely taken the place of tracheotomy in New York, but we doubt if the profession will ever accept it as a full substitute for tracheotomy in urgent cases. Our author, however, does not discuss the relative merits of the two operations, but presents the following reasons in favour of intubation. It relieves the dyspnœa of laryngeal stenosis; the child's parents do not oppose it; it is free from shock and danger; no anæsthetic is needed; the subsequent care of the patient does not require skilled attendants; the inspired air is warm and moist; and intubation does not preclude tracheotomy.

The last of the contributions to the laryngological department of this work is a most complete *résumé* of Tracheotomy, by Dr. H. R. WHARTON, of Philadelphia. This author, after discussing the time when the operation should be performed and the evidences of the necessity for it, lays down as a safe rule of practice "that tracheotomy is indicated in all cases of persistent and increasing dyspnœa which is due to mechanical obstruction of the larynx or adjacent parts of the trachea." He quotes the statistics of Lovett and Monro (1887), who collected the records of 21,853 cases of tracheotomies for croup, and found 28 per cent. of recoveries. This is about the same as the percentage in intubation—26.77 per cent. of 1,027 cases (Waxham, 1888), but we must remember that tracheotomy is often the last resort in extreme cases, while intubation is not contra-indicated, and therefore is probably done in many less urgent ones. One great advantage of intubation is, that it often removes the necessity for tracheotomy. Dr. Wharton, however, pursues the same course as does Dr. Northrup and, instead of presenting arguments in favour of one operation as opposed to the other gives us an essay of about forty pages closely written and well arranged bearing upon every phase of this important subject.

It may occur to the reader that what we have written is rather a commendation than a critical review, but let it be remembered that each subject in this department of Dr. Keating's work is discussed by an author who is specially familiar with that subject, whose views upon it have been largely accepted by the profession, and that here there is the careful presentation of such investigations and conclusions as have been found worthy of adoption.

William Porter

Killian (Freiburg, Br.).—*Examination of the Posterior Laryngeal Wall. With forty Illuminations in the Text.* Jena: Gustav Fischer, 1890. 77 pages.

IN the first part of his book the author describes the different methods,

prisms and double mirrors, at present used for examination of the posterior laryngeal wall. This portion of the larynx, as is well known, is in the ordinary laryngoscopic position, with head inclined backwards, only seen very incompletely and shortened. The author proposes the following method :—The examiner sits or kneels before his patient. The patient has his head as much as possible anteflexed. By this position the relative position of the front of the posterior wall is so changed that, if the mirror is now introduced, a more complete view of it in a less shortened manner can be obtained. The author relates some cases in which it was possible to see ulcers and other pathological processes of the posterior wall invisible in the usual manner of examination. For examination of the trachea the author recommends the usual erect position of the head of the patient. The author illustrated his results by mathematical and anatomical facts. Without doubt the new method will be of great use for the diagnosis of pathological processes of the posterior wall.

Michael.

Schwendt (Basel).—*The Congenital Occlusions of the Posterior Nasal Openings and their Operative Treatment.* “Die Angeborenen Verschlüsse der hinteren Nasenöffnungen und ihre Operation—Behandlung Habitationschrift, Basel bei Werner.”—Riehm, 1890. 106 pp. and 7 tables, with 23 illustrations.

THE atresiae of the openings of the human bodies, especially that of the nose, are of great teratological, surgical, and rhinological interest, and, therefore, merit more attention than is at present given to them by authors. The author, therefore, has collected all cases hitherto published, and adds one observed by himself. He sets aside cases which are only of teratological interest, *e.g.*, monsters without olfactory cerebral centres and olfactory nerves. Such cases usually die some hours after birth. The nasal malformation here is combined with other malformations. (2) Cases occurring in otherwise normal individuals. Such cases comprises occlusion of the soft parts, and closures by abnormal bodies, and are usually described by rhinologists. Of the first class eight cases are observed ; of the second, twenty-four. Then follows a table and a statistical review on the different nature of the closure, of the sex, and of the position, whether unilateral or bilateral. The most important chapter for us is the clinical. Concerning etiology, the author refers to his teratological remarks. The symptoms are those of obstructed nasal respiration. The impossibility of cleansing the nose is very disagreeable to the patients, and lead even those with unilateral occlusion to consult the physician. Sometimes the patients are able by exercise to close their mouth. In some cases the nose is very small : the voice has not always the nasal timbre ; reflex neuroses are not observed, nor aprosopia. Thus it seems that the patients often have the power of accommodating themselves to their condition. Very often the affection is complicated by diseases of the ear. In order to recognise unilateral closure in little children we can apply Politzer's balloon in one nostril. If both are free air and mucus will come from the other. In adults the mass of mucus in the occluded cavity is very significant. By the probe the nature of the occlusion can be determined ; from the mouth we see the arched form of the bony palate. The rhinoscopical view is somewhat

typical. The posterior nares are covered with a white diaphragm, the sides of which are vascular. The different methods must be combined in order to make a certain diagnosis. By illumination with a lamp, Schroetter had been able to judge the thickness of the diaphragms. The prognosis varies: in the case of little children sudden asphyxia is observed. Concerning the operative methods in adults, temporary relief is usually observed. As regards ultimate results, we have only uncertain reports, and there is a marked tendency to cicatricial reclosure. In grave cases the operation may be necessary as soon as the child is born, on account of imminent asphyxia. There are different methods of operation, viz.: perforation with trochars, or the removal of the diaphragm by the chisel or by an elevator; in some cases, drills or trephines are applied. Voltolini and Schroetter have operated with the galvano-cautery, local anæsthesia having been previously induced by the use of cocaine. For after-treatment, tubes of tin or rubber are applied for some months to prevent the reclosure of the diaphragm. The illustrations are executed in a very careful manner, and reproduce the most interesting teratological cases, and a photograph of the author's patient, rhinoscopical views and instruments for treatment.

Michael.

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LONDON.]

SEPTEMBER.

[1890]

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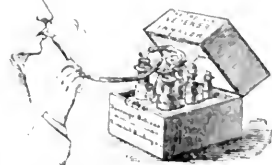
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THE
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OPERATIONS UPON THE LARYNX FOR
MALIGNANT DISEASE.

Two important communications upon this subject have just been made which merit attention, since in both the attempt is made to arrive at some indications which will lead the surgeon to select the cases for operation. It is probable that not until some concise rules are laid down for the guidance of the surgeon will the appalling records of these operations be bettered. There is no doubt that a large number of cases have been submitted to a severe and fatal operation which should never have been operated upon at all, and there is equally no doubt that many cases are allowed to run their course to the only end possible in which life might be prolonged for a considerable term by timely interference. Unfortunately, discussions upon the subject have been marked by acrimonious language and personalities, which, to say the least, have been regrettable, and while argument is conducted in this offensive manner there is little hope of arriving at the truth. We cannot fail to welcome any serious and scientific attempt to elucidate the question, and the papers to which we refer, viz., "De la Valeur comparée de la Tracheotomie et de la Laryngectomie dans les Cancers du Larynx," by MM. Ch. Fauvel and Et. Saint-Hilaire,¹ and "On Radical Operations for the Cure of Intrinsic Carcinoma of the Larynx," by Henry T. Butlin,² appear to us to be of this character, and therefore to merit attention. Fauvel and Saint-Hilaire base their paper upon the statistics, recently published by Eugène Kraus, in the "*Allgemeine Wiener Medizinische Zeitung*" of April 15, 1890. One hundred and sixty cases of total, and eighty of partial extirpation are here recorded. In one hundred and forty-two cases only was total extirpation performed for carcinoma. Of these cases, the patients were ten times lost to observation. Fifty-seven patients died during the few weeks immediately succeeding the operation (from pneumonia, pleurisy,

¹ "Gaz. des Hôp.," 1890. Nos. 72 and 75.

² Read at the 10th Int. Med. Congress, Berlin, 1890.

septicæmia, &c.) ; thirty-eight times recurrence took place within a year ; five times recurrence took place more than a year after operation (in one, thirteen months ; another, two years ; a third, two years and a month ; the fourth, two years and seven months ; and the fifth, three years and four months). In eight cases, death occurred during the first year from various affections. In twenty-four cases, the result was good, the patients having survived more than a year without recurrence. This gives a total of eighteen per cent. of cures, and forty-three per cent. of deaths from the operation.

Sixty-six partial extirpations have been performed for cancer (fourteen times for other causes). Eleven times the patients have been lost to sight after operation ; twenty-three times death has occurred within a few weeks of operation ; twelve times recurrence has taken place within a year, and twice beyond a year (one in thirteen months, and one in sixteen months) ; twice death has occurred during the first year from non-cancerous affections ; and only in sixteen cases has the result been good—the patients observed for longer than a year free from recurrence.

The comparison of the results shows a little in favour of partial extirpation, viz., twenty-nine cures per cent. in the latter operation as against eighteen per cent. in total extirpation, but the mortality from the two operations is nearly the same, viz., forty-three per cent. in total, and forty-two per cent. in partial extirpation. Fauvel and Saint-Hilaire think it justifiable to ask if the operation of extirpation of the larynx has not been somewhat abused, and if in many cases tracheotomy would not have been preferable, and point to the conclusion arrived at by the former in his work, published in 1876,³ that by tracheotomy alone life is prolonged on an average, in encephaloid cancer nine months, and in epithelioma two years and one month—a conclusion which has been confirmed by Augiéras and Schwartz, who each arrive at an average prolongation of life of eight months from tracheotomy. Taking Kraus's tables, the mean duration of life of those one hundred and eight cases of unfortunate operation is two and a half months, or, if the cases which are fatal immediately after operation are eliminated, a mean of about five months is arrived at, a result below that afforded by simple tracheotomy. The same practical result follows partial extirpation, the immediate mortality of each operation being about the same.

This untoward result of laryngectomy (pneumonia, pleurisy, septicæmia) cannot, Fauvel and Saint-Hilaire think, be foreseen, and they opine that the cachectic condition of the patient alone furnishes any indications for the operation, but, as methods of operation improve, probably the immediate mortality will decrease, an improvement already being noticed upon former results.

As to possibility of recurrence, to a certain degree it can be foreseen, and always in cases where the tumour is not circumscribed and clearly defined. If neighbouring organs are affected and lymphatics involved, recurrence is certain, and in such cases tracheotomy alone gives the most favourable results. The general conclusion of these authors is that laryngectomy should only be practised when the growth is very limited,

³ " *Traité des Maladies du Larynx*," p. 717. Paris, 1876.

and where it can be clearly circumscribed. Unfortunately, these cases are rare, and patients only present themselves for operation when the favourable period has been passed, and the growth is already beyond operation. In the experience of the authors, and judging from the results obtained by others, they are forced to conclude that, in general, the surgeon should be content with palliative tracheotomy. In other conditions for which laryngectomy has been performed (polypi, traumatic or syphilitic stenoses, and tuberculosis) the operation should be absolutely condemned.

Mr. BUTLIN¹ considers the question from the point of view of *intrinsic* versus *extrinsic* carcinoma of the larynx. Lest the term "intrinsic" should be misinterpreted, he clearly defines it as carcinomas arising in the ventricular band, the ventricle, the true cord, and the parts below the cord. "Extrinsic" would be the epiglottis, ary-epiglottic fold, intra-arytenoid fold, and pyriform sinus. While the carcinomas of extrinsic origin run a rapid course, affect the lymphatics early, and are seldom or never checked or cured by operation, intrinsic carcinoma is, on the other hand, much less formidable, not infiltrating or spreading so rapidly, and often running its course without affecting the lymphatic glands. He, therefore, agrees with Solis-Cohen that this general principle should be adopted in the selection of cases for operation, and that the latter should be limited to cases of intrinsic carcinoma. Statistics of one hundred and two operations for intrinsic carcinoma have been collected. Of the one hundred and two, twenty-eight operations were thyrotomy, with the removal of the diseased portions of the interior of the larynx; twenty-three were partial (generally half) excision of the larynx, and fifty-one were complete ablations of the larynx. Of the twenty-eight thyrotomies, three patients died from the effects of the operation; of the twenty-three partial excisions, seven patients died from the operation; and of the fifty-one total excisions (six of whom had previously undergone thyrotomy) sixteen patients died from the operation, making a total of twenty-six fatal cases in one hundred and two operations. The especial cause of mortality is found in affections of the lungs (*schluck-pneumonie*) and septic poisoning. It is probable that the mortality from septic poisoning is rather under than over stated. They occurred in patients in whom tampons were employed, various antiseptics relied on, in cases where tracheotomy tubes were worn for many days, and where they were dispensed with from the first, where feeding was conducted with œsophageal tubes, and where the patients were able from the first to feed themselves. The difficulties of maintaining the wound antiseptic, and preventing the entry of liquids into the air-passages, are especially great after these operations. Allowing for the extreme difficulty of keeping the external and internal wounds antiseptic, this author believes that but comparatively few patients die from direct wound-poisoning, and in the majority of cases the result is indirect and of pulmonary origin—from the entry of liquids into the air-passages. Notwithstanding the efforts made to prevent this by using large tracheotomy tubes and tampons, and feeding with œsophageal tubes

¹ "Brit. Med. Jour.," Aug. 23, 1890.

liquids (food, wound discharges, saliva, mucus, blood) still find entry into the bronchi, and we have to rely mostly upon the strength of the patient and the hope that he will be successful in coughing out the discharges. This operator is strongly disposed in future to treat the majority of his patients without tracheotomy tube or tampon (after the removal of the first tampon tube within twenty-four hours), and to rely upon frequent dusting with iodoform and borax, and covering the external wound with iodoform gauze, and by putting the patient in such a position that the wound may be dependent, and the discharges flow out rather than into the trachea.

As to "cures," we are glad to find Mr. Butlin adopt the plan of regarding those patients cured only who were free from the disease at least three years after the last operation. A study of his collected cases shows that fifteen patients were alive and free from disease, or died of some other disease than cancer, at periods of from three to twenty years after the last operation. Compared with operations for extrinsic carcinoma, these results are most favourable. With regard to operations for recurrent disease, "but little that is good can be said." These operations proved fatal in some cases, and not one of the patients received decided benefit, a result which tallies with the experience of operations for recurrent malignant disease in most parts of the body. "The best hope of success"—nay, almost the only hope—lies in the first operation. If this fails "there is little prospect of relief from surgical interference." As to the choice of operation in individual cases of intrinsic carcinoma, Mr. Butlin urges that the smallest operation consistent with the widest excision of the disease and removal of a wide area of the surrounding tissues should be performed. In order to accomplish this the larynx should be widely opened and examined. He does not approve of the modified laryngectomy proposed by Solis-Cohen, but looks for the greatest success in the future from operations directed to the freest excision of the disease and its surroundings, without reference to the removal of one-half or the whole of the larynx.

In most cases the removal of the cartilages and bones of the framework of the larynx in intrinsic carcinoma is wholly unnecessary; it is sufficient to expose the affected cartilage or bone, and cut away or scrape all the softened parts. Carcinoma invades bone with difficulty, and cartilage with still greater difficulty, and chances of recurrence in these parts are small.

From consideration of the cases collected, it is impossible to avoid the conclusion that the life of a patient upon whom complete excision is performed is very precarious, and that he is more liable to bronchitis, pneumonia, or accident, and that the comfort of the patient is also seriously affected. Though recurrences are greater in the table of thyrotomies, the explanation is that many cases thus operated upon were wholly unfit for so modified an operation, "and there is every hope that "the cases of the next ten years will tell a very different tale in this "respect, for these are the very cases in which greater experience and "improved diagnosis will have their effect."

ON THE INDURATIVE AND PROLIFERATIVE FORMS OF TUBERCULAR LARYNGITIS.

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PATHOLOGICAL ANATOMY.—CLINICAL STUDY.

SINCE the publication of Heryng's work on the curability of laryngeal tuberculosis, the possibility of a surgical treatment of the tubercular larynx, hitherto given up to merely medical treatment, has been recognised and admitted by a certain number of laryngologists. At the present time many specialists, with regard to certain cases of laryngeal tuberculosis, resort to surgical methods to complete the results obtained by medical treatment, which they do not regard as sufficient. If it is somewhat difficult to differentiate with exactitude between medicine and surgery, in regard to the treatment of the larynx, it appears probable, however, that one larynx would be more satisfactorily treated by cauterization with chloride of zinc, chromic acid, lactic acid (Krause), and antiseptics, all of which are commonly regarded as varieties of strictly medical treatment; whilst in the case of another larynx it would be more satisfactory to employ the curette and partial extirpation, which are strictly surgical methods of treatment. We have met with certain of these cases of tubercular disease of the larynx which it seemed probable would be benefited by surgical treatment. We speak of the indurative and proliferative varieties of laryngeal tuberculosis. Of twenty-two patients suffering from this form of laryngitis, and whose cases we have followed with care, only four have been surgically treated; the others have been treated by various medicaments rubbed into the surface. The general treatment has been conformable to the individual requirements. Corresponding to a careful examination of the general condition of the patient, we have registered, each time that it appeared necessary, the appearance of the affected larynx in an engraving, and compared it with the previously prepared normal appearance. It is thus possible to easily follow the most minute changes in the local condition due to treatment. Our surgically-treated patients are still too few in number to enable us to deduce facts as to the general results of certain surgical methods. We merely wish to add a contribution to other labours of this kind.

The facts that we have observed, estimated at their proper value, have enabled us to recognise that—

1. The employment, repeated at short intervals, of the cutting forceps, and of the punch, for the larynx, is not dangerous when proper care is taken. The management of these instruments is not, however, so easy that it is at once possible to educate the eye and the hand.
2. It is, then, logical to endeavour to profit by the advantages offered

by these instruments for the removal of pathological tissue in the form of tuberculosis of the larynx, that we are discussing. This method of surgical treatment entirely fulfils the indications of a symptomatic palliative treatment, inasmuch as dyspnoea, dysphagia, and aphonia, which are the frequent results of the presence of these lesions in a tubercular larynx, are susceptible of being greatly relieved by extirpation.

3. Finally, it seems probable that in certain cases the surgical treatment by extirpation would be advantageously completed by a scraping capable, by opening up and evacuating carious foci, of altering the tissues, of checking or, possibly, suppressing the tendency to relapse, of making the surface operated on a healthy wound with a tendency to cicatrization, in the same way as in the method of treatment advocated by Heryng for the tubercular laryngeal ulcers which have been scraped. We have not practised this method in the same nature of case as that on which Heryng operated.

PATHOLOGICAL ANATOMY.

The appearance presented by this morbid structure is easily recognised by an eye accustomed to laryngoscopic examination. MM. Gouguenheim and Tissier have given a complete description of it in their work on laryngeal phthisis. We will limit ourselves to giving a *résumé* of it. There are projections of various size, mammillated, villous, friable, whose surface is studded with whitish mucus. These outgrowths frequently cover the whole arytenoid region, especially towards the middle, and even extend above the glottis. This is perhaps affected, and then the appearance is that of an irregular surface nearly entire with the whole posterior surface of the larynx; the normal limits are effaced, and on account of this the whole arytenoidean region looks remarkably deformed. The texture is always the same: there are papillary hypertrophies developed on the tubercular mucous membrane in consequence of irritative or inflammatory action. In our cases we have noticed some of these causes of irritation, to which we attach a certain degree of importance—excessive use of the voice, alcoholic excess, cold. The histological examination of portions of these outgrowths which have been removed has invariably given the following results: superficial strata a corneous layer of flat and heaped-up epithelial elements; above this superficial layer are arranged regular series of epithelia cells of the same nature, but larger, less crowded, forming the papillary zone. The central stratum is formed of a vascular reticulum, more or less firm. The deeper strata show at the attachments of the most recent outgrowths tubercular granulations in process of evolution. Two sections treated by Ehrlich's method have not demonstrated the existence of tubercle bacilli; it appears to us, however, possible that in a similar case they might be present. The older discovered tissue presents in its central uniting reticulum tubercular foci either caseous or in process of caseation. We have stained the sections with picro-carmin and hæmo-toxylin. The hypertrophic papillae forming a corneous covering to the outgrowths of the mucous membrane, swollen and thickened by infiltrated tubercles, only play one part in the formation of the

proliferating pathological tissue. It cannot be said that they alone entirely compose this tissue. Thus *papilloma* of the tubercular larynx (Cornil and Rauvier), or irritative papillary hypertrophy, which is met with in the *dermoid change* of Forster, laryngeal papilloma, we say, does not appear to be a tumour of a special nature, but seems rather in certain of its anatomical characters to present itself, as regards tuberculosis of the mucous membrane, not as a neoplasm, but as an inflammatory production. (*See Plate V.*)

We will not give up the term papilloma, which constantly occurs in descriptions, but we only employ it in the sense of its pathology, which we have just explained. Such, to sum up, seems to us the nature of the diseased structure which we attack by surgical treatment. Is it advantageous or the reverse to do so? This is the question to which we wish to call attention by recording our tentative operative procedures.

CLINICAL STUDY.

Indurative tubercular laryngitis, with proliferation, is relatively frequent; this is the universal opinion of writers. Our patients are all adults; their age varies from twenty-five to forty years. The chief general causes of the development of the diathesis in them are first and foremost alcoholism, afterwards a sedentary life and neglect of the laws of health. In some cases the influence of hereditary predisposition must be added to the manifold exciting causes of acquired tuberculosis. The local exciting causes are frequently laryngeal irritation, due, as we have already mentioned, to alcoholic excess or the demands of a profession. Some patients, blacksmiths and bakers, are exposed to a temperature varying with change of position, with the cessation or renewal of work; others, newspaper-sellers, waggoners, &c., are obliged to use their voice excessively in crying in the streets. We think that the passage of a column of air, at first very warm, then all at once very cold, has exerted an unfavourable influence on the mucous surface, already weakened by the presence of tuberculosis in our patients. We have the same opinion as regards persons who use their vocal apparatus unreasonably, thus moving the inflamed vocal cords and the arytenoid region by rough and repeated contraction. All our patients are affected in varying degrees with pulmonary tuberculosis, and the chest signs have preceded by a more or less long interval the inflammatory affection of the larynx. Further, it is an important fact as regards the subject of the primary evolution of the tubercular element in the larynx, that all had already laryngitis when the troubles occasioned by the presence of the pathological proliferating tissue supervened.

At the outset the patient merely presented the ordinary signs of a commencing laryngitis: redness of the mucous membrane, hoarseness, and slightly-marked dysphagia. The hoarseness, in turn, became dysphonia; then one day, as the result of a trivial occurrence—such as the passing from a warm room into a colder one, an excess of drinking—the dysphonia becomes aphonia, which remains permanently. The patients have cough, expectoration (sometimes coloured), and dysphagia, which is generally so intense and disagreeable that they no longer hesitate to take

care of themselves. Till this time, indeed, they had been but little concerned about their health ; later, difficulty of respiration appears, and renders sleep impossible. It is at this time that examination of the morbid laryngeal growth establishes the presence of the proliferative pathological tissue, to the appearance of which it is not necessary to recur. The evolution of accidents is slow. It is not until the laryngitis has lasted a year or two that this tissue becomes prominent, leading to the symptoms of which we have already spoken. The disease presents remissions, and these remissions can be so prolonged that the patient, although hoarse, aphonic, and troubled with a certain degree of dysphagia, lives in perfect tranquility, in fair general health, and differing greatly from the sufferers from ordinary phthisis. If the disease is left to its natural evolution, and if there is evident likelihood of the laryngeal trouble giving rise to more urgent symptoms than the thoracic, the patient runs the risk of succumbing to an attack of suffocation produced by the stenosis of the glottis and the mechanical friction of the vocal cords. The progress of pronounced dysphagia, due to tubercular proliferative arytenoiditis, can also cause death, through gradual cohesion due to the difficulty of supplying the patient with sufficient nourishment. If, on the other hand, the disease, instead of being left to its natural development, is attended in time by prudent surgical intervention, its progress can be perhaps in some degree hindered, or at least the melancholy termination for a long time postponed. Before studying this mode of treatment, in order to realize the favourable results that it offers when put in practice, and to show the results which it has given us, let us say a word as to the diagnosis of tubercular laryngitis of the indurative and proliferative type.

II—DIAGNOSIS.

Diagnosis is easy when the signs of a chronic sclerous vegetative laryngitis, which we have established, exist at the same time as those of undoubted pulmonary tuberculosis. The diagnosis becomes more difficult when the commencing pulmonary lesions are with difficulty appreciable, but only suspected after minute examination of the thorax. Recourse should then be had to bacteriological examination of the sputa, and of the mucus taken from the laryngeal mucous membrane itself. If, in a doubtful case, indications for surgical interference occur to the mind of the observer from the appearance of important functional troubles, especially when they are respiratory, it is necessary to intervene ; the operation would be an aid to diagnosis as well as a palliative surgical intervention. The extirpated products, after hardening, should be prepared for bacteriological examination after the method of Ziel and Ehrlich. Does any inconvenience arise to patients submitted to this extirpation? We do not believe so. Do any advantages result from such a course? Some, perhaps, as we shall have occasion to point out.

Differential diagnosis.—The differential diagnosis of the sclerous and vegetative form of laryngitis will have to be made from four affections of the larynx : chronic laryngitis with papillomata, chronic laryngitis consecutive to chronic rhino-pharyngeal catarrh, tertiary syphilitic laryngitis, and cancer of the larynx.

Chronic laryngitis with papillomata, although the tendency to-day is no longer to regard these as epithelial tumours, but as simple irritative inflammatory lesions, susceptible of development upon any cutaneous or mucous surface chronically irritated, ought to be regarded under different types (Oertel). According to Oertel there exist three laryngoscopic forms of laryngeal papilloma :—

1. The first form, the least characteristic, comprises a pink, or deep red, unequal, papillated, situated upon the edge, anterior surface, or anterior commissure of the vocal cords : its size varies from a grain of "chanvre" to that of a haricot ; the growth may be single or multiple, and the latter is commonly the case.

2. The second form comprises greyish tumours of clearly papillary nature, great groups of vegetations surrounded by smaller ones, the whole inserted on the vocal cords with a large base.

3. Lastly, the papilloma occurs as a tumour of grape, mulberry, or cauliflower form, filling more or less completely the cavity of the larynx ; its texture is papillary, and its consistence soft. In addition, the surface of the papilloma has sometimes the aspect of mucous membrane, at others a cornified appearance. (Schwartz. Th. Agrég., Paris, 1886.)

Chronic laryngitis with papilloma presents itself to the eye of the observer on a basis of reddened mucosa, sometimes slightly thickened, the elevations more or less numerous, round, isolated, or united into raspberry-like groups, of consistence sufficiently firm to be removed by instruments without alteration of form, disseminated over the whole surface of the laryngeal cavity, occluding the glottis, often to the point of giving rise to very pronounced respiratory and vocal troubles. Patients present this condition for a long time with perfect general health, and it is only several years after the commencement of the disorder that examination of the lungs discloses tuberculosis. In three patients, women of from thirty to forty-five years, whom we have observed at the clinic of the Lariboisière, where they have been attending for one or two years for the removal of reddish papillomata recurring constantly after each operation, only one, first affected with laryngitis six years ago, presents now evident signs of pulmonary tuberculosis. The two others have as yet nothing discernible in the lungs. Laryngitis with papilloma may then, up to a certain point, embarrass the observer as to its diagnosis from tubercular laryngitis of the sclerous and vegetative form, if it did not occur to the mind on the one hand, the so distinctive aspect of the arytenoid region in this latter affection, where the mucosa is irregular, anfractuous, swollen, covered with villous outgrowths, friable, covered with mucus, and where the almost constant occurrence of early pulmonary tuberculosis is noted. There are evident differences between these two affections, clinical differences especially, which give to each of them a special form : (1) chronic laryngitis with recurrent papilloma, generally very confluent, evolving slowly to pulmonary tuberculosis ; (2) tubercular laryngitis of sclerous and vegetative form, co-existing almost always with pulmonary tuberculosis. The first clinical form may be confounded with the second, with which we are dealing.

We have often seen, in certain patients affected with chronic rhino-

pharyngitis, laryngitis absolutely similar to that presented under the sclerous and vegetative form of tubercular laryngitis. Sometimes there is in this laryngitis of chronic rhino-pharyngeal origin the same malformation of the arytenoid region, the same thickening of the mucosa, along with catarrhal lesions of the nose and pharynx. Is the laryngitis of these patients of the same nature as the rhino-pharyngitis with which they are affected, and is it consecutive to the latter? This is possible. We, however, consider this laryngitis to be of graver nature. If we think of its appearance—absolutely comparable to that of sclerous vegetative tubercular laryngitis—and its course, we are tempted to make of it a tubercular laryngitis, and to treat it as such, paying attention, of course, to the rhino-pharyngitis. These are the patients whom we watch with attention, by reason of the possible and parallel development of pulmonary tuberculosis, by frequently ausculting the lungs. One patient of our clinic, a woman of twenty-five, who has been under our observation on this account, and who has been affected for a long time with chronic rhino-pharyngitis, presents to-day evident signs of pulmonary tuberculosis (see Observation IV., Delouvain).

Tertiary syphilis and tuberculosis of the larynx so often appear in perfectly similar form, that nothing is more difficult than to determine between them. Anti-syphilitic treatment, which often gives assistance in the diagnosis of the specific character of a lesion, does not appear to have the same importance in these cases, treatment having little effect upon tertiary sclerous forms of laryngitis. Commonly in tertiary syphilis the lesions are more extensive. They invade almost all parts of the organ, which are not affected to such an extreme degree in the form of tuberculosis which we are considering. The epiglottis, particularly, is often so greatly affected that it is not always easy to inspect other parts, which are found to be covered with vegetations, either friable or persistent, and, in the latter case, hard and of variable size. Internal treatment, as we have said, has no effect upon this condition, and even the surgical treatment which we employ for tuberculosis may be followed by the same effect. The difference in the larynx of these last cases is in the excessive irregularity of the affected parts, which are cleft with furrows of deeper extent. In syphilitics the existence of characteristic lesions of the upper regions (pharynx, naso-pharynx, and nose) can yet be recognized, and, in default of these, cicatrices of old lesions, which, to a practised eye, are easily discernible.

We have had occasion to observe many of these cases in the clinic, and one of us has been able to successfully extirpate some of these tumours which are very hard and old; at this moment there is also a patient at the Lariboisière clinic affected with a syphiloma of the arch of the palate, the uvula and fauces, in whom there also exists a tumefaction of the posterior wall of the larynx, absolutely resembling that which we have described as occurring in tubercular cases; the patient, a man of thirty-five, is aphonic, and has had syphilis for four years.

If the differential diagnosis between syphilitic sclerosis and vegetative tubercular laryngitis is difficult, and often quite impossible, it is not so for the differential diagnosis of this latter affection from *cancer of the larynx*.

The latter (epithelioma) cannot possibly be confounded with the epithelial productions accompanying tuberculosis. If one were likely to confound it, at the first appearance of the formation of the tumour the only means of diagnosis being the microscopic examination of the place of implantation, it would be necessary to be content with waiting and watching. Cancer occurs under three anatomical forms, which are quite different in appearance from the tubercular variety which we are considering. Generally it is *unilateral*, sometimes, however, *bilateral*; it shows itself in these two forms as a massive tumour, occupying in certain cases the posterior half of the larynx, and enclosing in its mass the arytenoids. The mucosa is deep red, ulcerated or not, and coursed with large blood-vessels. In the third, or *vegetative* form, the vocal cords are covered with vegetations, the arytenoid region is occupied with bleeding vegetations, covered with foetid mucus if there is ulceration. Continual salivation and cough, often accompanied with alarming attacks of suffocation, the absence of the characteristic pulmonary signs, dissipate any doubts. As to adenopathy, it is well known that if the cancer is intra-laryngeal it does not occur for a long time, and it is only much later on that this pathognomic sign appears.

III.—THERAPEUTICS.

1. *Indications for surgical intervention.*—These are more or less pressing according to the three principal phenomena: *Dyspnœa and apnœa*, *dysphagia*, and *aphonia*. It is frequently only on the first appearance of one of these three symptoms that the patients come for consultation, and ask for immediate relief. The *dyspnœa* is generally slight but progressive. After a certain time attacks of suffocation occur, which may be repeated, especially at night, often enough to make one think of immediately performing tracheotomy; but how does tracheotomy usually and often affect the patient the subject of tuberculosis of the lungs and larynx? Respiration is certainly restored immediately, but it is essential to look at the importance of the pathological evolution, which is awakened and rendered active by this operation in such patients. If the sclerous and vegetative larynx is not ulcerated, if on the other hand pulmonary tuberculosis is already well established, tracheotomy for the immediate treatment of asphyxia may engender complications later on—*e.g.*, bronchitis, broncho-pneumonia, by the artificial respiratory conditions which it creates. Would it not be preferable, where possible, when the larynx is in a relatively good condition, to have recourse to local intervention, and to endeavour to suppress the direct cause of the asphyxia by the extirpation of the morbid proliferative tissue obstructing the larynx? We have not favoured tracheotomy in our patients, and have obviated dyspnœa by many operations which have been very well tolerated.

Dysphagia in all our patients has appeared from the beginning of the affection to increase with the progress of the disease. It always affects the *morale* of our patients. That is nothing in particular, since it is in all cases of tubercular laryngitis the phenomenon which brings the patient almost every day to us. He demands at least the help of local anæsthesia to make deglutition possible to him. But this dysphagia in a

patient whose general health is still good, this dysphagia which every day impedes alimentation, and soon leads to debility of the organism, can perhaps be palliated not only in its painful manifestations by local anæsthetics, but also by directly applying instrumental methods to its determining cause. We have, as in other forms, made a more or less prolonged application of anæsthetic and antiseptic medicaments—*e.g.*, menthol and creosote, precede all instrumental intervention.

Is it possible to obtain any result by surgical treatment in the patients, who, afflicted with *aphonia* from a period closely dating from the commencement of the disorder, need the voice and ask for immediate relief? Ought a sclerous and vegetating larynx to be operated upon for aphonia? Is there any contra-indication to operation, and does the voice reappear after repeated extirpations of the proliferative tissue sufficiently to satisfy the patient? Our observations lead us to conclude that it is possible to intervene in these cases without serious inconvenience, and with some benefit, especially when the cause of the symptom is found in the existence of a mass of morbid tissue lying between the little-altered lips of the glottis, and preventing them from coming into contact at their posterior insertion.

1. The *surgical treatment* of tubercular laryngitis of the sclerous and vegetative form may be pretty well regulated according as we meet with it in its different phases :

(a) Antiseptic applications to the laryngeal cavity for many days before intervention.

(b) Surgical intervention. Manual operation.

(c) The treatment after operation.

Treatment means a series of repeated interventions, more or less long, for which it will be necessary to exercise patience. These operations are not painful, since it is possible to have recourse to local anæsthesia ; but it is necessary to obtain perfect submission on the part of the patient, so that it may be undertaken, if not always with success, at any rate without any serious consequences.

(a) *Preparatory swabbing the larynx*.—Preliminary antiseptics of the larynx is to be obtained : is it not better to say that it is a thorough cleansing of the larynx which we seek to obtain? We imagine, indeed, that antiseptics, whatever they are, when introduced into the larynx can only have a very limited action localized to the parts touched by the medicament. The laryngeal cavity is so anfractuous that it is difficult to reach the mucous surface in its different regions. The recognized difficulty, due to the abundance of micro-organisms resident there, which is met with in obtaining even partial antiseptics of the upper digestive tract, makes it logical to admit that the larynx, related so immediately and intimately with the bucco-pharyngeal cavities, will also share the same infectious characters.

The method, however, which we have used has always given good results, even if perfect antiseptics has not been obtained. From eight to ten days before the first intervention, every second day, or oftener, morning and evening, we make a laryngeal injection with Beechag's syringe of menthol and creosote in oil.

1. Sweet oil of almonds	100 grammes.
Menthol.....	20 "
2. Sweet oil of almonds	100 "
Creosote.....	10 "

Mix the two solutions in a water bath. The syringe contains two cubic centimètres.

For the two or three days immediately preceding operation the injection has been made each morning. We take care to limit as much as possible the entry of the application into the sub-glottic region, and we endeavour to avoid touching the glottic chink with the instrument. The application is made with gentleness and rapidity. We thus obtain two very important results. Patients at once accept willingly the repetition of these laryngeal applications with a syringe, much preferable to sponge applications or the forceps in a subject predisposed to suffocation. Moreover, in proceeding gently we provide against the slightest traumatism provoked by the contact of the extremity of the syringe against the arytenoid region. We have indeed observed in the first patients treated that energetic and repeated touching of this laryngeal region, in a patient with vegetating arytenoiditis, did not fail to be followed by tumefaction considerable enough to slightly accentuate the dysphagia, aphonia and even dyspnoea, and to make the patient uneasy. On the first occasion the application is made with only half the contents of the syringe, and we advise the patient immediately after the injection to respire freely, so as to immediately re-establish the natural respiration. After the first and second applications the patient experiences no discomfort. With these preliminary precautions, we obtain a mucous surface smooth and completely freed from mucus—perhaps a little more rosy than at the commencement of treatment, but without inflammatory phenomena. The first operation has always been practised about twelve days after the first application of the creosote menthol—*i.e.*, as soon as the patients have had seven or eight previous applications.

(b) *Operation.*—The operation is performed upon the patient fasting, and a last application of the creosote menthol is made about ten minutes previously. Local anaesthesia is then obtained by a strong solution of hydro-chlorate of cocaine (one-fifth). The buccal pharynx is swabbed with the anaesthetic on lint. The larynx and as much as possible of the arytenoid region is touched with a laryngeal "porte éponge" saturated with the same solution. The effects of cocaine anaesthesia in the pharyngo-laryngeal cavities are clearly and rapidly perceived by the patient. The latter is placed before Drummond's lamp with oxy-hydrogen illumination. We need scarcely remark that it is essential to possess a brilliant illumination in attempts at this kind of intervention; it is important to follow closely the entry and action of the instrument. The choice of instrument is important. We have used either the cutting forceps or the punch, two instruments which we have had constructed by Mathieu, one on the model of Mackenzie's forceps, the other on that of the ordinary punch, and similar to an instrument used by Prof. H. Krause, of Berlin, for curetting the larynx, and which he has called a double curette. When we had constructed this instrument we were ignorant of the existence of that of Krause

who called our attention to the similarity of the two instruments on his last visit to Paris. The laryngeal punch is formed of two small oval fenestrated cupolas, fixed at one of their extremities on a small shank of steel. The two shanks, bent each in an opposite manner, are enclosed as two springs in a hollow tube or canula, and the two fenestrated cupolas are alone exposed. They correspond face to face at their cutting edges, being separated from one another when the springs which support them are pushed beyond the canula, and they embrace one another in the opposite direction.

The instrument manufactured at Paris by Mathieu is scarcely different from that made at Berlin under Krause's direction. The cupolas of the French instrument penetrate close together, one being, however, smaller than the other. They cut cleanly, and their deep action is very marked. One can thus extirpate a marked slice of tissue. In the German instrument the cupolas act equally with the same mechanism. The handle of the instrument is made in such manner as to give the necessary gliding movement for separation or approximation of the cupolas. This movement is provided for by a system analogous to that of Stoerk's handle or by a pedal system. This is certainly preferable. With it the hand is motionless; it is a movement of the thumb resting on the pedal which furnishes the gliding motion. With the other handle the whole hand has to move, and this may prevent the localization of the action. This matter of absolute exactitude in the local action of the punch is to be obtained, since the least unfortunate movement of the hand, or a movement of the patient, may lead to a regrettable accident. It is this which makes the operation very delicate, and one which necessitates a certain amount of skill.

The cutting forceps somewhat resemble those of Morell Mackenzie; it is, however, a little larger and much heavier. At the extremity is a spoon with sharp cutting edges, of a length of about two centimètres, so that it can be inserted and held in the glottis. The two spoons very exactly approximate by their two edges, which are very sharp.

When the vegetations to be removed are clearly pedunculated we employ the cutting forceps; when these vegetations are situated on the glottis we always employ them; but when the masses are thick, sessile and extensive we prefer the punch, the action of which is much more energetic. When the pedunculated tumours were too hard we were obliged to employ the punch instead of the cutting forceps. After the operation, commonly of short duration and supported without the least difficulty, hæmorrhage is insignificant and is arrested with the greatest ease. These operations may be renewed at short intervals.

(c) *After treatment.*—After operation, the region operated upon, easily visible by its bleeding surface, is dusted with iodoform powder by an insufflator, and the same is repeated on the evening of the same day. Absolute silence is enjoined, ice and iced fluids being given.

Next day, and for three days after, on each morning, an injection is made with the syringe of creosote and menthol in oil, the patient remaining under observation. If a single operation is not enough, it is undertaken a second, or three or four times, if necessary. When after operation a

little swelling of the region operated upon or of the neighbouring parts occurs, the patient is left to absolute rest and antiseptic inhalations. If recurrence tends to occur, the ordinary applications are supplanted by lactic acid.

Immediately after the operation the patient feels a modification of the symptoms which called for the operation.

It is this amelioration which decides him to exercise the patience asked, and to demand the continuation of the treatment.

(To be continued.)

THERAPEUTICS AND DIPHTHERIA.

Jahr.—*Improved Apparatus for Inhalations.* "Therap. Monats.," July, 1890.

MODIFICATION of the apparatus described by the same author two years ago in this Journal. *Michael.*

Hughes (Soden).—*On Aristol.* "Deutsch. Med. Woch.," Nos. 18 and 19, 1890.

THE author has applied the new medicament in diseases of the nose, pharynx, and larynx in the form of insufflations. He recommends it especially for cases of chronic dry rhinitis, ozena, and laryngitis, because of its effect in increasing the secretion. *Michael.*

Rosenbaum, A. B. (Mohilev-Podolsky).—*Menthol and Oils of Eucalyptus and Peppermint in Pulmonary Phthisis.* "Novosti Terapii," No. 13, 1890, p. 192.

THE writer highly recommends frequent inhalations of a mixture of one part of menthol, three parts of eucalyptus oil, and two of oil of peppermint. When at home, the sufferer should pour several drops of the mixture on the surface of hot water; when out, the mixture (three—four drops) should be inhaled from a handkerchief. The treatment is said to be rapidly followed by a marked decrease of expectoration, alleviation of cough, and amelioration of the patient's general state.

Valerius Idelson.

Nykamp (Leyden).—*Experiments on the Effect of Weigert's Hot-Air Apparatus on Laryngeal Tuberculosis.* "Deutsch. Med. Woch.," No. 18, 1890.

THE temperature of the pharynx during inhalation of air of 210° was 55°; in the trachea it was only 36°. The application in cases of phthisis was without any effect. *Michael.*

Ürevitch (Flatopol).—*Aniline in Pulmonary Phthisis.* "Rüsskaia Meditzina," Dec. 31, 1889, p. 745.

DR. ÜREVITCH relates an instance of what he regards as "cure of phthisis" by Professor Kremiānsky's method. A midwife and *feldsheritza* (medical assistant), thirty-one years of age, with typical symptoms of one year's "standing (including tubercle bacilli in the sputa, dry cough, dulness and

"crepitant râles over the left apex, blood spitting, hectic fever, progressive emaciation, etc.), was subjected to the following rather poly-pharmaceutical treatment : (1) Deep inhalations of a mixture consisting of $\frac{1}{4}$ teaspoonful of boracic acid, 1 tablespoonful of boiled water, 1 tablespoonful of pure white aniline, 40 drops of peppermint oil, and 20 drops of carbolic acid ; they were made by means of Kremansky's inhaler and repeated not less than 600 times a day. (2) $\frac{1}{4}$ teaspoonful (*sic*) of antifebrin and 4 drops of aniline oil internally, 3 times daily. (3) Inunction of the salve : R. Acidi boracici, olei anilini ana 5j ; ol. menthol piperitæ 5jj ; vaselini 5j. M. D. S. To rub into the whole chest at bed time. To cover the parts with paraffin paper. Now and then the salve was replaced by a mixture of 1 ounce of aniline oil with 1 pound of French turpentine oil. (4) From time to time the dull area was painted with iodine tincture, or blistered. (5) Ferro citrate of quinine internally (for anæmia). (6) Mixed dietary with sour articles of food ; 6 tablespoonsful of meat powder."

The first effects of the treatment consisted in a blue colouration of the lips, nails, nose, and ears, giddiness, aural noises, and cardiac palpitations. The symptoms, however, gradually subsided, the patient subsequently bearing aniline quite well. On re-examination of the lady at the end of three months' course, her temperature proved to be normal ; night sweats, cough, chest pain, tubercle bacilli, had disappeared ; dulness had become hardly perceptible ; vesicular breathing restored ; the patient had gained 12 pounds in weight, "feeling quite cheerful, well, and even strong."

Valerius Idelson.

Bresgen (Frankfort-on-Main).—*Application of Pyoktanin "Merck" in the Nose and the Throat.* "Deutsch. Med. Woch.," 1890, No. 24.

As a treatment after the application of the galvano-cautery the author has applied insufflations of pyoktanin with best results. *Michael.*

Baden (Denmark).—*A Case of Cocaine Poisoning.* "Hospitals-Tidende," 1889, No. 17.

In a delicate lady, aged thirty-eight, with polypus of the nasal cavity a small plug with a twenty per cent. solution of cocaine was introduced in both sides of the nose. After a short time the patient suddenly collapsed, got cold hands and feet, and spasms of the flexor muscles of the hand. Four hours later the patient began to recover.

Holger Mygind.

Flindt, Nicolai (Denmark).—*An Epidemic of Diphtheria caused by Contagion suspended in Milk.* "Ugeskrift for Læger," April 26, 1890.

DESCRIPTION of an epidemic of diphtheria where at first only those persons who had obtained milk from a certain dairy were attacked. The milk of this dairy was collected from several farms, amongst which was one where some cases of diphtheria had been observed several months previously to the outbreak of the epidemic described.

Holger Mygind.

Sevestre, M.—*On Early Pseudo-Diphtheritic Scarletinal Sore Throat.* "Société Médicale des Hôpitaux," March 9, 1890.

THE sore throat (pseudo-membranous), which occurs in the course of scarlatina, is generally considered, in France, as being of diphtheritic origin, and the patients who are suffering from it are placed in the diphtheritic ward. It is, however, a variety of sore throat which ought to be distinguished: it is always an early manifestation, and develops in the first days of scarlatina; it is characterised by the production of white patches, which frequently are exactly similar to those of diphtheria, and which respect neither the uvula nor the soft palate, so that the diagnosis is often very difficult. But they do not extend to the larynx, and the general condition of the patients in most cases remains satisfactory.

These sore throats are benign, and nearly always end in recovery; further, they do not communicate diphtheria to neighbouring children. Bacteriological researches made recently at the hospital Trousseau, by MM. Wurtz and Bourges, have proved that the bacillus of Lœffler is absent, and have, on the contrary, established the presence of a streptococcus existing alone or co-existing with the streptococcus albus. This streptococcus is very similar to, but not identical with, that of erysipelas. Thus it is a secondary infection independent of diphtheria, as has already been proved clinically. *Joal.*

Bonamy.—*The Employment of Eucalyptus Inhalations in Diphtheria.* Société Médicale de Nantes, March, 1890.

THE antiseptic powers of these vapours have been demonstrated by Petresco (Bucharest), Peldyck, Hinglay, and Martin. In Nantes, M. Bonamy has for some time recommended them, and prefers their employment to that of draughts of eucalyptus. The cases which he relates, and those which he has already published, constitute a series of twenty-eight cases of diphtheria, croup, quinsy and bronchitis; of this series only four cases died. The conditions of success depend on the care which was taken to charge the air of the room occupied by the patient with the vapours of eucalyptus infusion. *Joal.*

Sørensen (Copenhagen).—*General Remarks on Diphtheria.* "Hospitals-Tidende," 1889, No. 14.

THIS article is based on the author's experience in the fever hospital, Copenhagen. He has never seen severe general symptoms in patients where the local diphtheric process was slight. *Holger Mygind.*

Biering (Roeskilde).—*The Treatment of Diphtheria.* "Ugeskrift for Læger," 1890, Nos. 28 and 29.

ADVOCATES strongly the local treatment of diphtheria, especially frequent (every fifth minute) applications of a solution of chlorate of potash and powdered boric acid. *Holger Mygind.*

Forralba.—*Remarks on Diphtheria and Croup.* "Crónica Médico-Quirúrgica de la Habana," January, 1890.

THE author believes that diphtheria is produced by the bacillus of Klebs and Lœffler, which segregates a pathogenous substance—true diphtheritic poison. The dust of the streets contains bacilli in large quantity; these

find in the mucous membrane of the mouth and nose conditions suitable to life, and frequently, but not invariably, they grow and multiply.

Ramon de la Sota y Lastra.

Reiersen, A. C. (Copenhagen). — *Some Questions concerning Croup and Diphtheria.* *Ibid.*, No. 30.

THIS article deals principally with the errors commonly committed in the diagnoses of croup and diphtheria. Amongst other cases the author relates that of a child, aged one year, where tracheotomy was performed on account of extreme laryngeal stenosis, and where the *post-mortem* examination only showed the presence of acute laryngeal catarrh.

Holger Mygind.

Urban (Leipzig).—*Reports on Thirty-two Cases of Intubation in Laryngeal Diphtheria.* "Deutsch. Zeitschrift für Chirurgie," Bd. 31, Heft 1 and 2.

DESCRIPTION of the method, its advantages and disadvantages, and history of thirty-two cases treated with it. The results are very unfavourable. In eighteen cases tracheotomy was required after intubation—on account of the impossibility of feeding the patient, three; dyspnoea, ten; sudden obstruction of the tube, four; œdema of the ary-epiglottidean folds, one. All the cases died. Fourteen cases were treated only with intubation. Of these, three easy cases recovered. The author thinks that intubation has some advantages, such as the absence of hæmorrhage—that it can be performed without narcosis and assistance—but he believes that only in certain cases is it applicable. But its value is so much less than that of tracheotomy that no more trials are made, and now in all cases of Thiersch's clinic tracheotomy is performed as formerly.

Michael.

Dubousquet-Laborderie. — *Treatment of Whooping Cough by Antipyrine.* Société Thérapeutique, April 23, 1890.

OF a total number of three hundred cases that he has treated with this drug, he has obtained very satisfactory results in one hundred and ninety-seven, and, in some cases, the cure has proceeded with great rapidity. The accidents observed in consequence of the administration of antipyrine have been relatively rare, inasmuch as he has only noticed them fifteen times; they consisted chiefly of scarlatiniform skin eruptions, or of the phenomenon of gastric irritability. In conclusion, he says that antipyrine can and ought to be administered to children in sufficiently large doses from the beginning, doses varying from fifty centigrammes to three grammes; that preferably the drug should be taken after the paroxysms in an alkaline vehicle, or directly afterwards a cup of milk or of beef tea should be swallowed; that antipyrine is better tolerated by children whose temperature is normal than by those presenting febrile symptoms.

Joul.

MOUTH, TONGUE, PHARYNX, ŒSOPHAGUS, &c.

Bergança.—*Mixed Tumours of the Parotid.* Société Anatomique, May 19, 1890.

THE author showed a very large tumour of the parotid removed by M. Pigrot, from a man, aged fifty. The neoplasm, of long-standing, had at first undergone very slow growth, then, without known cause, its increase in size became very rapid. It had not caused facial paralysis. A preliminary histological examination showed the presence of a mixture of myxomatous and epitheliomatous masses. This examination will be completed.

Joal.

Lediard (Carlisle).—*Sarcoma of the Parotid.* "Brit. Med. Journ.," Jan. 11, 1890. Border Counties Branch, B.M.A., Dec. 20, 1889.

EXHIBITION of a specimen of spindle-celled sarcoma, removed from the parotid region of an infant, aged four months. Recovery.

Hunter Mackenzie.

Owen, Edmund (London).—*Selected Subjects in the Surgery of Infancy and Childhood.* Second Lettsomian Lecture. "Brit. Med. Jour.," Jan. 25, 1890.

THE lecturer dealt with the subject of hare-lip, with dermoid cysts, and with the small tender lumps which were found shortly after birth in the sheath of the sterno-mastoid. He asserts that wry-neck is always, or with few exceptions, the result of partial or complete rupture of the sterno-mastoid during parturition, and that this was indicated by the presence of these firm, oval, painless swellings in the sheath of the muscle (hæmatomata). These ought to be treated by gentle massage and manipulation. Two other forms of wry-neck were alluded to, one due to cold and wet, and the other arising from acute disease of the upper cervical vertebræ.

Hunter Mackenzie.

Arctander, H. (Denmark). — *Xerostomia.* "Ugeskrift fer Laeger," May 3, 1890.

DESCRIBES a case of the disease classified by Hutchinson and Hadden under the name "xerostomia." The patient was a woman, aged forty-four, who for seven years had suffered from dryness of the mouth, which by degrees had increased so much that she was obliged to drink after each mouthful of dry solid food on account of the absence of saliva; in addition, decay of the teeth developed. The mucous membrane of the lips and the oral cavity was smooth, pale, dry, and so viscous that it adhered to the exploring finger. The stenonian ducts appeared as two pyramids, almost half an inch high, out of which could be pressed a clear viscous slime; after which proceeding they collapsed. The tongue was denuded, red, dry, and with deep furrows. She died some time after from typhoid fever.

Holger Mygind.

Pavloff, Petr A. (Moscow).—*Primary Syphilitic Ulcers of Lip, Gum, Tongue, Soft Palate, and Tonsil.* "Meditsinskoie Obozrenië," No. 1, 1890, p. 12.

THE author describes the following series of cases of extra-genital and non-venereal syphilitic infection which came under his observation during the last five years :—

(a) Seven cases of *labial chancres* in four adult men and three women. Of the number, in two (one man, one woman) the ulcer was situated on the upper lip, and in five (three men, two women) on the lower. It had invariably clean-cut edges, a smooth floor of a rich red colour, and a but slightly indurated base. As a rule, the surrounding zone was somewhat swollen (œdematous). In one of the male cases the base of the ulcer was rather spongy, and bled freely. In all of the patients the sub-maxillary lymphatic glands were considerably enlarged, and usual secondary syphilitic manifestations present.

(b) A case of *gingival chancre* in an old woman of sixty-five who used to feed a syphilitic infant (a grandchild of hers) from her mouth. The ulcer appeared, at the site of the lost upper right-sided canine and adjacent molar teeth, to spread over the oral surface of the gum and an adjoining area of the hard palate. It was about as large as a farthing piece, and had circular outlines and an intensely congested, shining, and dry-looking floor, which was covered with a greyish coat only in its middle, the remaining surface being quite clean. No induration could be detected. The right sub-maxillary glands were enlarged fairly considerably, the sub-lingual and cervical but slightly, the left-sided glands being normal. The patient's body was studded with syphilitic roseoles.

(c) A case of *lingual chancre* in a man. The sore was situated on the edge of the tongue, being accompanied with a typical enlargement of sub-maxillary glands.

(d) A case of primary syphilitic *erosion* of the right wing of the *soft palate* in a woman, aged sixty. The ulcer was circular and clean cut, and had a rich cherry-red colour. The sub-maxillary glands about the angle of the lower jaw were as large as a hen's egg.

(e) Three cases of hard *chancre of the tonsil* in two men and a young lady. In the latter, who had had hypertrophied tonsils, the sore developed on the left gland, causing a considerable induration of the organ and intense congestion of the adjoining faucial mucous membrane. The sub-maxillary glands of the left side were as big as a hen's egg.

Valerius Idelson.

Covernton, T. S. (Toronto).—*Papilloma of the Tongue successfully removed.* "Canadian Practitioner," June 16, 1890.

A LARGE sessile papillomatous growth was met with on the dorsum of the tongue of a child aged two years and a half. The tumour measured rather more than three-quarters of an inch in diameter. The history of development was obscure ; it is certain it appeared after birth, however.

Two curved gilded needles were attached to the negative pole of a galvanic battery, the positive pole was applied over the lower cervical vertebrae, and with the strength of five milliamperes the needles introduced

into different parts of the growth, leaving them inserted for a few minutes each. After complete softening was thus produced, the whole mass was removed by means of a gilded spear-shaped needle, which was made to cut its way gradually through the disorganized tissues. Within a week the tongue was completely healed.

George W. Major.

Denorup.—*Contagious and Infectious Nature of Tonsillitis.* "Thèse," Paris, 1890.

THE author quotes cases of nephritis, of albuminuria, of adenitis, orchitis, ovaritis, occurring as the result of a tonsillitis; he also brings forward facts to support the view that the affection is contagious.

Joal.

Trumbull (Valparaiso).—*Follicular Tonsillitis followed by Infective Phlebitis.* "New York Med. Record," Aug. 9, 1890.

THE patient, female, aged fifty-four, had an attack of follicular tonsillitis, with considerable general disturbance. A week later, the throat not now being complained of, she began to suffer from pain and tenderness in the left calf. For some months previously the veins of the legs had been varicose. On examination several veins of the inner side of the left calf were found to be dusky, tender and nodular, but there was no induration or tenderness above the course of the saphena vein. The next morning, a severe rigor having occurred the preceding evening, she complained of vomiting, headache, and general *malaise*, with pain of the left calf, which was swollen, hot, and the seat of cellulitis extending over a surface the size of the palm of the hand, surrounding the obstructed veins of the previous day. Other severe rigors followed, and the prostration became extreme. Finally pneumonia set in, and the patient died ten days after the first appearance of phlebitis. The author regards the follicular tonsillitis as the starting-point of a septic inflammatory process, infective organisms entering the blood at this point and finding a resting-place in the dilated veins, whence they were discharged throughout the body.

R. Norris Wolfenden.

Bleynie, M.—*On the Treatment of Pharyngeal Diphtheria by Ice.* "Journal Médicale de la haute Vienne," March, 1890.

THE author has employed this mode of treatment for some time, and records cases successfully treated with gargles, drinks, injections and irrigations of cold water or with ice. How is this success to be explained? By the action of cold upon the diphtherogenic microbe: an action comparable to that which this physical agent exerts on the bacillus of furuncle, the micrococcus of pneumonia, and on other micro-organisms. The degree of chilling which is necessary to destroy the vitality of the microbe remains to be ascertained. This is a gap, the existence of which M. Bleynie admits; but at the same time he remarks that this treatment of diphtheria is a particular case of the more general question of anti-sepsis by cold.

Joal.

Laquer (Wiesbaden).—*On Pharyngotomy Subhyoidea.* "Therap. Monats.," 1890, Heft 5.

IN cases of carcinoma of the posterior pharyngeal wall, cured by

pharyngotomy subhyoidea, the author collected the literature of the operation. Twenty-eight cases were operated on. The success of the operation was not favourable. The half of all cases died under operation, the other half from relapses. Only one case, referred to by Iversen, was definitively cured. *Michael.*

Moreno Zancudo.—*1 Case of Spasmodic Stenosis of the Gullet* "Revista Clínica de los Hospitales," May, 1890.

A LADY, forty-three years old, had an attack of hysteria produced by a sudden fright. From that time she could not swallow without rejecting almost everything that she drank. Two years later, Moreno saw her. She was very feeble, all medicines having failed to remove the dysphagia. The patient could not be anesthetized or hypnotized, but she was cured in two months by gradual dilatation with catheters.

Ramon de la Sota y Lastra.

Postnikoff, Konstantin N. (Kainsk, Siberia).—*Case of Foreign Body in the Pharynx, ending in Death.* "Vestnik Obshtchestvennoi Higieny, Südebnoi i Prakticheskoi Meditziny," Feb., 1890, p. 69.

A STRONGLY-MADE male peasant, aged fifty, died rather suddenly, after he had been, for some time past, heard complaining of chest pain, the affection having been attributed by him to a severe blow received many years previously. At the forensic *post-mortem* examination there was found a copper coin (an old *kopieka*, of the size of a farthing piece or so) "jammed in the lumen of the pharynx, close to the gullet." (No other details are given.—*Reporter.*) The pharyngeal, laryngeal, tracheal and bronchial mucous membranes were intensely congested and covered with an abundant whitish viscid mucus; the lower lobes of the lungs acutely inflamed; the left upper lobe cedematous. The author gave his opinion to the effect that "death had been caused by acute suppurative inflammation of the lungs, resulting from an accidental swallowing of the coin." Since enquiry elicited the fact that the deceased, to all appearances, had not been aware of the accident, the writer arrives at the conclusion that the man, having one day received the coin as change in some public-house, put it into his mouth, between his cheek and teeth (according to a foolish custom widely spread amongst the Russian peasantry), and subsequently swallowed it in an unconscious state (either when asleep, or when heavily intoxicated). [At all events, both the description of the case and explanation offered by the author are rather defective and vague.—*Reporter.*]

Valerius Idelson.

NOSE, NASO-PHARYNX, &c.

Joal.—*Spirometric Researches in Affections of the Nose.* "Revue Laryngologique," March, 1890.

By means of the spirometer (described in this Journal, July, 1890) the author has made scientific demonstration of a fact already known clinically, that in the case of subjects in whom respiration is habitually embarrassed by a nasal lesion the respiratory capacity is diminished in notable proportions. In spite of the modification in the respiratory functions, there is no sensible dyspnoea, but nevertheless the spirometer shows a diminution in the vital capacity. The author has applied these data in the case of singers, and he has proved that vocal troubles can have for their cause a nasal affection acting upon the respiratory functions. From conclusive cases he shows that in the case of singers, fatigue, feebleness of voice, difficulty in emitting high notes, &c., result frequently from a respiratory insufficiency due to a nasal lesion. It is thus important for artists and orators to know their respiratory capacity, and to know this also in order to recognise its modifications, and also to simplify the investigation of etiological conditions which preside over the development of certain vocal alterations. *Joal.*

Loewenstein.—*Aristol in the Treatment of Ozena Simplex.* "Internat. Klin. Rundschau," No. 20, 1890.

COMMUNICATION of four cases in which this drug was insufflated with the best result. *Michael.*

Meyes (Amsterdam). — *Therapy of Ozena.* "Monats. für Ohrenheilk.," June, 1890.

THE author has applied nitrate of silver with good results. *Michael.*

Ziem (Danzig).—*Remarks upon the Paper of Dr. Gerber on Retro-nasal Catarrh and the so-called Tornwaldt's Disease.* "Therap. Monats.," No. 12, 1889.

Ziem (Danzig).—*Remarks upon the Paper of Dr. Foelchen on the Anatomy of the Naso-Pharynx.* "Virchow's Archiv.," Bd., 119.

POLEMICAL articles. *Michael.*

Pavloff, Petr A. (Moscow).—*Primary Syphilitic Sore of the Nose.* "Meditsinskiĭ Obozreniĭ," No. 1, 1890, p. 14.

THE writer details two rare instances of nasal syphilitic chancre of a non-venereal origin, occurring in men. In one of the patients, a clerk, who had been living with a syphilitic friend, and had received a superficial abrasion (from a fall) of the globella, on the right side, close to the nose, the lesion transformed into a somewhat elevated hard chancre covered with a thin, greyish film in its middle. Shortly afterwards the

right sub-maxillary and anterior auricular glands became enlarged, and later on, usual secondary manifestations made their appearance.

In the other patient, the ulcer, of the size of a farthing piece, occupied the inner surface of the right nasal wing. It had a circular shape, slightly raised, clean-cut edges, and a somewhat depressed centrally, smooth, dry, as if polished, floor of a cherry-red colour, both its edges and base being slightly infiltrated. The outer surface of the nostril was considerably congested and tumefied (so as to cause a striking asymmetry of the organ), the sub-maxillary and upper cervical glands of the right side being a good deal enlarged.

Valerius Idelson.

Dionisio, T.—*A New Method of Treating some Nasal Alterations.* "Giornale della R. Accademia di Medicina di Torino," April-May, 1890.

THE new method, which according to the author is serviceable in cases of chronic hyperplastic inflammations of the nasal passages, consists in the application of an india-rubber sac, into which water is injected so as to produce dilatation of the sac. (The same instrument—modified by Dionisio—is used in order to ensure, with the addition of a canula, nasal respiration.)

The relater is of opinion that the idea is excellent, but he has more confidence in compressed air (by means of a common pneumatic apparatus), which he employed and praised many years ago. *Massei.*

Major, George W.—*Foreign Body retained in the Nose for twenty-five years.* Trans. Montreal Med. Chir. Soc.

THE patient, a woman, aged thirty-one years, applied at the clinic for diseases of the nose and throat, at the Montreal General Hospital, and complained of obstruction of the right nostril. On examination a foreign body was discovered which, when removed, measured 19 by 13 by 9 millimètres, and weighed two grammes and a half. The woman asserted that the nucleus would likely be found to be a small sea-shell. Though she had not suspected the presence of any foreign body, she recalled having twenty-five years before, when six years old, placed some small sea-shells in her nose. When the mass was exhibited at the Medico-Chirurgical Society's meeting, and there broken, the pearly fragments of shell were readily distinguished. In this case there was no offensive odour, and no excoriation of the upper lip. The patient's husband, who accompanied her to the hospital, was able of his own knowledge to confirm her statements.

George W. Major.

Bartnal. — *An unusual Complication of Hypertrophy of the Nasal Septum.* "Clínica Médica de Valencia."

A MAN could not pronounce a word in which was the letter "n" without a feeling of great irritation in the cartilaginous portion of the nasal septum. These sensations occurred during mastication, and to avoid them he only took liquid food. The nasal septum was very deviated in its cartilaginous portion, with the convexity to the right side, so that the tip of the nose inclined to the left, and the prominence almost reached to the internal face of the nasal wing. The mucous membrane of the

turbinated bones was normal on both sides, but that of the septum appeared thickened and morbidly red. Deviation of the nose had existed from birth. Bartnal cauterized with the galvano-cautery, the hypertrophy disappeared, and the patient was cured. Bartnal is convinced of the relation of cause to effect which existed between the alteration of the mucous membrane and the sensations from which the patient had suffered.

Ramon de la Sota y Lastra.

Major, George W. (Montreal).—*An Osseous Cyst of the Nasal Cavity.*—Montreal Med. Chir. Soc.'s Trans. June 27, 1890.

The patient, an adult male, was referred for the removal of myxomata of the left nasal passage. On examination the probe detected a globular body unconnected with the middle turbinated bone, arising from the middle meatus. The polypi had their origin from the surface of this sphere. On puncturing with a steel trephine a flow of yellow serous fluid resulted. A cold wire snare was adjusted and the cyst removed almost in its entirety by *excisement*. On inspection the cyst wall was found to be composed of a thin layer of bone, which was quite translucent. The cyst was of the size of a small cherry. But few cases of osseous nasal cyst are recorded. The writer found in Dr. L. Dayer's (Brussels) monograph mention made of but one, that of Glasmacher, in addition to Dr. Dayer's own case.

George W. Major.

Slickock (London).—*Nasal Polypi.* "Brit. Med. Jour.," Jan. 4, 1890, Western District of the Metrop. Count. Branch, B.M.A., Dec. 21, 1889.

Hunter Mackenzie.

Ricci, A.—*Traumatic Hematoma and Abscess of the Nasal Septum.* "Buletina delle Malattie dell'orecchio della gola e del Naso," July, 1890.

IN this case the author did not try the usual method of cutting the tumour, but perforated the mucous membrane beneath the upper lip, with the usual antiseptic treatment and compression in the nostril. The patient recovered.

As everybody can recollect similar success, the question is to see if the new method is, for quickness, safety, etc., preferable to the old. Recovery took place in thirty-two days.

Massci.

Berg, John (Stockholm).—*Contribution to our Knowledge of Diseases of the Accessory Cavities of the Nose and to the Study of Discharge of Cerebro-spinal Fluid through the Nose.* "Nord. Med. Arkiv.," 1889. Vol. xxii.

THE author first quotes a case of osteomata in the frontal sinus, in a man, aged thirty-seven. Thirteen osteoid tumours were removed by means of trephining the sinus, which was dilated principally towards the cranial cavity. By the operation the dura mater was extensively exposed, but the patient recovered, and got rid of a severe headache from which he had suffered for a long time, and which only had been relieved now and then, an abundant watery fluid at the same time being discharged from the nose. This latter symptom appeared in another patient, a lady, aged twenty-five, with symptoms of hydrocephalus of the sphenoid sinus; violent headache for ten years, with feeling of pressure over the eyes, increasing failure of sight owing to bilateral atrophy of the optic nerve, diminution

of the sense of smell, and now and then abundant watery discharge from the nose. The patient was found to be almost totally blind without exhibiting other cerebral symptoms; the roof of the naso-pharyngeal cavity was slightly depressed, and there was some exophthalmos. After having removed the right eye-ball, the sphenoid cavity was trephined through the posterior part of the internal wall of the orbital cavity, after which operation an abundant yellowish fluid filled the orbital cavity, showing a distinct pulsation. A drainage-tube was inserted, and the fluid was discharged through this for the following four months, the patient being relieved from her pains and doing well. As, however, the pains returned, the author suspected the presence of an osteoma and dilated the opening, without being able to detect anything by exploration with the finger. After this last operation the patient completely recovered, the blindness, however, persisting.

The author thinks that the abundant discharge of watery fluid from the nose in these two cases, as well as in most cases recorded in literature, was caused by exudation or rupture of the lymphatic vessels, which form, according to Key and Retzius, a communication between the sub-arachnoidal cavity and the mucous membrane of the nose, and not by a naso-cranial fistula caused by primary augmented pressure of the cerebro-spinal fluid (the theory put forth by Leber). The presence of optic atrophy in the one case, the author explains as resulting from the propagation of an inflammatory process from the lymphatic vessels in the sphenoid cavity to the sub-dural and sub-arachnoid spaces. *Holger Mygind.*

Korner (Frankfurt-on-Main).—*Experiences on Hypertrophy of the Pharyngeal Tonsil.* "Versammlung Befreundeter Süd-Deutscher und Schweizerische Ohrenärzte Pfungsten," 1890.

THE author showed the upper jaw of patients affected by hypertrophy of the pharyngeal tonsil. He considers there are two forms, one of them observed before the change of the teeth, the other after the change. The high position of the palate is caused by diminished development of the nose, and not by the pressure of the air entering through the mouth. If the obstruction of the nose continues after the completion of second dentition, the upper jaw is affected, so that the anterior teeth do not stand in one line, also the other teeth have an irregular position. For those cases in which the obstruction is caused by deformation of the bones and cannot be removed by operation, the application of contraspirators, otherwise very serviceable, cannot be recommended. In some cases the author has observed enuresis nocturna, due to obstruction of the nose by the pharyngeal tonsil, and cured by operation.

Michael.

LARYNX.

Frankel, B.—*Diseases of the Upper Air Tract following Influenza.* "Deutsch. Med. Woch.," No. 28. (Cf. the report on the Berliner Laryngologische Gesellschaft. *Michael.*

Le Noir.—*Ulceration of the Vocal Cords occurring in the course of Influenza.* "Annales Maladies Oreilles," March, 1890.

OF 130 cases of influenza which were observed, four presented symmetrical ulcerations at the anterior portion of the vocal cords; these ulcerations rapidly healed; according to the author they were of infectious origin.

Joal.

Koch, P.—*Laryngeal and Pharyngeal Manifestations of Influenza.* "Annales Maladies de l'Oreilles," March, 1890.

THE naso-pharynx was always very suddenly attacked; inflammation of the mucous membrane was considerable, and nasal respiration greatly embarrassed. Had there been no other assignable cause, one would have thought of syphilis. The mucous membrane, of a violet-red colour and very œdematous, closely resembled idiopathic erysipelas of this region; the reddened, swollen uvula, often displaced by a unilateral œdema, in this way simulated a symptom of albuminuria. Paralysis of the first period from inflammation was very rare, but paralyses affecting the larynx and the soft palate are met with later on.

Joal.

Botey.—*Influence of Pregnancy upon several Forms of Dry Laryngitis.*

"Archivos Internacionales de Laringologia, Otologia, y Rinologia," No. 1.

THREE patients, who suffered for a long time from chronic rhinopharyngo-laryngitis, with a thick secretion, but without ozœna, and previously rebellious to all treatment, were cured completely as soon as they were pregnant, but the affection reappeared during the weeks following parturition or miscarriage.

Ramon de la Sota y Lastra.

Luc.—*Contribution to the Study of Combined Syphilitic and Tubercular Lesions of the Larynx.* "Archives Laryngologie," Feb., 1890.

FOLLOWING Schnitzler and Cardone, Luc publishes four cases proving that tubercular lesions of the larynx have followed syphilitic lesions. It is not right to speak of the co-existence of the two affections; between them there exists the relationship of cause and effect. It appears as if tertiary syphilis prepares the ground and renders it receptive of the bacillus of Koch, which enters the organisms by the ulcerated surfaces.

Joal.

Neumann (Pesth).—*Laryngeal Tuberculosis.* "Pesther Med. Chir. Presse," 1890, Nos. 27, 28, 29.

THE author reports on the effects of the different methods of treatment in Navratil's clinic, and recommends the surgical treatment of the disease.

Michael.

Uchermann, V. (Christiania).—*On the Treatment of Laryngeal Phthisis.*
 "Ferhandlingar paa det 3die Norske Laegemøde," Bergen, 1890.

CONTAINS a review of the modern treatment of laryngeal phthisis, and the results of the author's own experience. He advocates strongly the treatment with curette and lactic acid, having obtained perfect healing of tubercular ulcerations in three out of ten cases treated with curette and solutions of lactic acid in increasing strength from 10 to 60 per cent.

Holger Mygind.

Trow.—*The Diagnosis and Local Treatment of Tubercle or so-called Phthisis of the Larynx.*—Ontario Med. Assoc. "The Canadian Practitioner," July 1, 1890.

THIS paper dealt generally with the symptoms of laryngeal tuberculosis, and advocated the usual methods of treatment. In the discussion which followed, Dr. Price Brown emphasized the statement that amelioration could and ought to be attained, and he believed that in some cases actual cure could be accomplished. He also held that the occurrence of voice changes such as the falsetto on phonation were aids to diagnosis. Dr. Palmer deprecated the use of the ordinary curette, but advocated that of the double curette, on the ground that the latter cuts and does not injure or bruise the tissues. Dr. Ryerson regarded the prognosis as always bad—that amelioration was possible, but not cure.

The reviewer, while agreeing as to the serious character of such cases, cannot allow the present opportunity to pass without recording his experience as to the good results frequently obtained by local treatment. He can recall to mind several living examples of local cure, in individuals whose cases admitted of no doubt as to their exact nature. In other cases the laryngeal conditions were entirely removed before death took place. In his hands the sub-mucous injection of lactic acid has afforded the most satisfactory results.

George W. Major.

Jonquière (Berne).—*Third Contribution to the Knowledge of Aphonia Spastica.*
 "Monats. für Ohrenheilk.," June, 1890.

DETAILS of a case cured by pressure on the ovaries.

Michael.

Major, George W. (Montreal).—*Complete Bilateral Abductor Laryngeal Paralysis.* Montreal Med. Chir. Soc.'s Trans., May 16, 1890.

THIS patient, a lad of seventeen, had been under observation for two years. He gave the following history:—When a child he had suffered from cerebro-spinal meningitis during the prevalence of an epidemic of that disease. He was confined to bed for six months, and during three months of that period opisthotonos was a marked symptom. He lost the sight of the right eye, but no wasting of the eye-ball resulted. After convalescence a lateral curvature of the dorsal spine was observed. During the two subsequent years he enjoyed a fair share of health, when what he termed a relapse occurred. During this second illness the right eye-ball underwent wasting, and the patient was maniacal for three months. For three years there were no aggravations, when the right arm became paralysed. The lower limbs at this time were strong, and there

was no stumbling gait. He now contracted a cold, when hoarseness developed—this gave him no particular annoyance for eighteen months; then the breathing became laboured, and three months later tracheotomy became necessary. When the dyspnoea commenced there was associated with it great difficulty in swallowing—especially of liquids. Taste and hearing were unimpaired. Sensation in the larynx was diminished, and the cough, which was more or less constant, resembled that of a dog when choking. Knee-jerk was wanting, sensibility of the feet diminished, gait was unsteady, and the patient unable to stand with closed eyes or when walking backwards.

The larynx when examined was anæmic and wasted-looking. The vocal cords were lying in a position of extreme adduction. The patient wore a tube continuously up to the time of his death, which was the result of displacement during sleep. Unfortunately, no *post-mortem* examination was permitted.

George W. Major.

Bassols y Prim.—*On a Case of Dysphonia.* “*Revista de Laringologia Otologia, y Rinologia*,” March, 1890.

AFTER a few remarks upon phonetical mechanics, and upon the physiological phenomena of speech, Bassols refers to a case of a young man who spoke with a slightly hoarse voice, or suddenly became aphonic. Examination with the laryngoscope showed an infiltration of the aryteno-epiglottidean folds. Conjecturing that the condition was produced by a deficient development of the vocal cords, Bassols advocated treatment directed to the training of the voice by suitable exercises.

Ramon de la Sota y Lastra.

Desvernine (Gulbos).—*Congenital Polypus of the Larynx.* “*Annales Maladies de l'Oreille*,” April, 1890.

CASE of a child, aged seven, in whose larynx were seven new growths, absolutely independent of one another. The operation of tracheotomy was performed high up and the tumours were removed with Mackenzie's forceps. But the author having ascertained the existence of a sub-glottic growth, performed laryngo-fissure, removed the tumour with the curette, and complete cure resulted.

Joal.

Major, George W.—*Subcordal Laryngeal Growth removed by Endo-Laryngeal Method.* Montreal Med. Chir. Soc.'s Trans. May 16, 1890.

THE patient, a bricklayer by trade, gave a previous history of sub-acute laryngitis. The growth was situated beneath the right vocal cord, well forward, and was removed with Mackenzie's antero-posterior cutting forceps. Dr. Wyatt Johnson, who examined the growth, reported it to be a simple papilloma. A similar growth was removed from the right anterior faucial pillar in the same man.

George W. Major.

Cisneros.—*Tumour of the Vocal Cord.* “*Revista de Medicina y Cirugia Práctica*,” July 7, 1890.

A MAN, aged fifty-seven years, had on the superior surface of the left vocal cord a white, flat tumour, the size of a lentil. Notwithstanding the small size and position of the tumour, the patient was aphonic. He was a great smoker, but not a drinker, and without pathological antecedents.

A portion of the tumour having been removed with Fauvel's forceps, was examined microscopically, and found to be a papilloma. The patient did not wish to be operated upon, but some time after he had returned home he suffered so severe an attack of dyspnoea that he wished to be operated on immediately. Tracheotomy was performed the same day, and a few days later thyrotomy, all the tumour being removed. The wound was cured rapidly, and the patient continued well, his voice being a little hoarse.

Dr. Uruñuela believed that it would have been better in this case to have removed the growth *per vias naturales*, for thus the patient would not have been exposed to two severe operations, and the result with regard to the voice would have been more satisfactory.

Ramon de la Sota y Lastra.

Pirier.—*Extirpation of the Larynx without preliminary Tracheotomy.* Société Chirurgie, March 19, 1890.

A MAN of sixty-six submitted lately to the operation of extirpation of the larynx without previous tracheotomy. His history is as follows: In the month of September, 1888, he first complained; in the month of May, 1889, he consulted a specialist, who noted immobility of one of the vocal cords, without any other morbid change. At the end of 1889 he was admitted to the Lariboisière under M. Gouguenheim, who found at the level of the left inferior vocal cord a polypoid mass, proliferating, the diagnosis of which could not be in the least doubtful. Three partial extirpations were performed on the 6th, 11th, and 15th February, 1890, respectively; the portions removed were examined, and the microscope confirmed the diagnosis of epithelioma. M. Gouguenheim communicated with the speaker, who, finding no local or general contra-indication, decided to perform ablation of the larynx. A transverse incision, a finger's breadth above the cricoid cartilage, was made extending from one sterno-mastoid to the other. This incision terminated at the superficial aponeurosis. Then a second transverse incision was made at an equal distance from the hyoid bone and the thyroid cartilage, this incision also extending from one sterno-mastoid to the other, and including all the soft parts down to the thyro-hyoid membrane. These incisions, carefully carried out at the sides and behind the larynx, allowed the trachea to be grasped and a thread of silk in a holder to be passed under it, by the aid of which it was easily controlled. It was then attempted with a Cooper's needle to turn round the posterior aspect of the trachea, but this proceeding, easily performed on the dead body, presented great difficulties in the case of the patient. The trachea, supported by the thread, was divided between its first ring and the cricoid cartilage; a conical cannula, fixed by the thread supporting the trachea, allowed the administration of chloroform to be continued at a distance. The larynx was dissected away from below upwards to the level of the epiglottis absolutely entire; above this level it was cut transversely. This ablation finished, copying a practice adopted by M. Tenier, the trachea was sutured to the lower part of the wound, then the dissected integuments were reunited in the median line; finally the upper wound was closed, an orifice being left so that an artificial larynx

could be placed in position in communication with the cavity of the mouth, and thus render possible the articulation of sounds. Unfortunately, the patient, who during the rest of the day and the first part of the night had done well, succumbed very rapidly sixteen hours after the operation.

SCHWARTZ remarked that the operation performed by M. Périer was extremely interesting, and that he was not aware of the previous performance of such an operation. New facts acquired subsequently will enable its value to be determined; he wished merely to make two observations relative to the operation of M. Périer. The first was that the cancer, being limited to the ventricular cavity, to the left vocal cord and slightly to the left ventricular band, partial extirpation, an infinitely less serious proceeding, would have sufficed. The speaker's second observation was a declaration in favour of the old method of operation, which has the advantage of accustoming the patients to breathe by their canula, inasmuch as tracheotomy has already been performed.

TENIER said that under similar conditions he had performed extirpation of the larynx. This case also was one of cancer, diagnosed by M. Gouguenheim, who referred the patient, a man aged fifty, to the speaker. On the 24th June, 1889, he came under his care, with extreme suffering from paroxysms of coughing, which were very painful, from incessant salivation, and the constant secretion of very abundant mucus. Unfortunately, the preliminary tracheotomy had been performed very high up, which interfered seriously with the dissection of the trachea and the removal of the larynx. On 26th July, 1889, extirpation of the larynx was performed, the canula of Trendelenburg being employed, which acted so badly that it was necessary to remove it, and rapidly to divide the trachea. The subsequent proceedings were simple enough; but the speaker called attention to an incident occurring on the first day, and which illustrates well the necessity of the greatest precaution being observed in the surrounding of these patients.

Towards the end of the first day the edges of the opening began to swell, and then very rapidly ensued intense dyspnoea, which would have certainly proved fatal if the assistant in charge of the case had not inserted a canula, which re-established respiration. The tumour histologically proved to be a squamous epithelioma. A month later the patient swallowed without much difficulty. Some months later the presence of a small gland situated laterally was discovered. The speaker removed it on 28th November. The patient's condition remained very satisfactory, when, on 14th December, he was attacked by influenza, with shivering and intense dyspnoea; in a few hours a general pulmonary congestion ensued, and proved fatal in a few hours. The palliative results of this operation have been severely criticized. This patient frequently stated that there was no comparison between his condition before and after the operation, and the speaker had been much impressed by the results. Thus, he said, "I am to-day a supporter of intervention in these tumours, and I willingly adopt the procedure just proposed by M. Périer."

LE DENTU remarked that at the end of the year 1887 he had seen a

patient in whom the possibility of accidents had led him to perform laryngotomy. The case was one of cancer, which was operated on in the month of February of the following year, after preliminary tracheotomy, the patient having been accustomed to bear the canula of Trendelenburg. The lesions were very extensive. It was necessary to remove the epiglottis, and even part of the base of the tongue. The immediate results were satisfactory, but six weeks later a relapse occurred, and the whole of the floor of the mouth was involved. It appeared to the speaker that suture of the trachea to the skin was a satisfactory procedure, but it had the disadvantage of causing accidents by the swelling of the edges of the wound, and of rendering the subsequent adaptation of an artificial larynx very difficult. He considered possibly preferable partial suture of the trachea. The speaker added, that if his memory served him, partial laryngectomies were always followed by relapses.

LUCAS-CHAMPONNIÈRE thought that preliminary tracheotomy was preferable to the operative procedure proposed by M. Périer, because it protected the trachea from the entrance of morbid particles in cases where it is necessary to clean out the laryngeal cavity; further, if any sudden dyspnoea supervened during the extirpation, it would be very embarrassing to have to rapidly perform tracheotomy, which had now become inevitable. As regards partial extirpation of the larynx, the speaker considered that in certain cases they were very advantageous, and did not share the opinion of M. Le Dentu on this point. *Joal.*

Schaeffer (Bremen).—*Foreign Body in the Larynx*. "Monats. für Ohrenheilk.," June, 1890.

A CHILD, aged four years, suddenly became hoarse, having eaten soup. Some time later dyspnoea supervened. The author saw a piece of bone fixed in the larynx, and the next day extracted it with forceps. The length of the bone was twelve millimètres; it was six millimètres broad, and eleven millimètres thick. One end was fixed in the inter-arytenoid fold; the other in the right sacculus laryngis. *Michael.*

Semeleder (City of Mexico).—*Wound of left Vocal Cord*. "New York Med. Record," Aug. 9, 1890.

A WOMAN, picked up by the police, was taken to the hospital, and seen by the author. She had been stabbed in the left side of the neck, between the hyoid bone and the thyroid cartilage, about three-quarters of an inch from the median line. The wound was about one inch long; there was but little hæmorrhage. The patient soon recovered, but remained hoarse. On laryngoscopical examination, the pharynx and upper part of the larynx were found to be inflamed, and the left vocal cord was divided transversely, between its median and posterior thirds near its inversion into the processus vocalis. The wound was completely cicatrized at the time of examination. *R. Norris Wolfenden.*

Desvernine.—*Laryngo-Tracheal Fracture—Vocal Cords united—Supplementary Glottis*. "Revista de Ciencias Médicas de la Habana."

A YOUNG man struck the laryngeal region against a bar. Hæmorrhage from the mouth, severe local pain, dysphonia and slight respiratory

troubles immediately presented themselves, and several days later dyspnoea was so severe that tracheotomy was performed. Emphysema of the whole neck succeeded, and it was necessary to substitute a larger canula for the one at first employed. After that the patient continued well during fifteen years. Desvernine found him in the following condition:—Patient is a slightly-built man, feverish, with cough and muco-purulent expectoration, containing very many bacilli. Three or four years ago respiration was performed without a canula through a channel of about five millimètres diameter, the external orifice of which was kept open by the fibrous tissue of the margin. The voice was dysphonic, but intelligible. The laryngeal region was free from swelling, excepting the vocal cords, which were completely united, establishing a flat, even, red surface, with a small orifice near their anterior insertion.

This patient died several months later from tuberculosis.

Ramon de la Sota y Lastra.

Cisneros.—*Laryngeal Epithelioma—Extirpation of the Larynx.* “*Revista de Medicina y Cirugia Practicus*,” July 7, 1890.

A MAN, aged forty-six years, had a red, ulcerated tumour, which covered all one side of the larynx, and involved the vocal cord of the other side, so that the glottis was much narrowed. Tracheotomy was performed, and three months later an operation that Cisneros described as extirpation, and Uruñuela partial resection of the larynx, but from the description it is impossible to say what was the nature of the operation that was performed. The patient recovered.

Ramon de la Sota y Lastra.

Hahn.—*Extirpation of the Larynx.* Berliner Med. Gesellschaft. Meeting, June 18, 1890.

THE author showed (1) a specimen of a case in which he performed, nine years ago, the extirpation of the larynx. Relapse occurred nine years after operation. (2) A specimen of laryngeal extirpation operated on a short time ago. Here a relapse followed in a short time after the operation, the tongue being involved. During two years the author has operated on six cases, all of whom have survived the operation. One of them died ten weeks later from pneumonia. He now only operates on those cases in which a partial operation is possible.

Michael.

Schaeffer (Bremen).—*Laryngeal Carcinoma.* “*Deutsch. Med. Woch.*,” 1890, No. 28.

THE author saw the patient first in 1885. He was fifty years old, and had an infiltration of the left ventricular band. Cure by local treatment. Eight months later hoarseness and infiltration of the left ventricular band covering the vocal cord. Extirpation of half of the larynx by Dr. Hahn in Berlin, 1887. Cure, with good voice. The extirpated tumour proved to be epitheliomatous. In March, 1890, a relapse occurred. The site of the operation was occupied by a large red tumour. Deep tracheotomy was performed. The patient is still living.

Michael.

Glover.—*Contribution to the Study of the Performance of the Operation of Tracheotomy in the Adult.* “*Annales Maladies de l’Orielles*,” March, 1890.

THE author recommends that the cutaneous incision be made with the

bistoury, afterwards employing the grooved dissector and the thermo-cautery in order to obtain complete arrest of hæmorrhage.

Fabiani, G.—*Tracheotomy on Account of a Wound of the Larynx.* "Archiv. Ital. di Laring.," July, 1892.

A MAN, twenty-seven years old, presented a wound produced by a revolver ball which penetrated the larynx through half the thyroid cartilage. Tracheotomy was necessary, on account of narrowing of the larynx the following day. Death ensued a few days later, on account of septicæmia.

At the autopsy, a perforation of the right half of the thyroid cartilage was found, the ball, passing through the left ventricular band and vocal cord, had broken the left arytenoid cartilage at its base; the crico-arytenoid ligament of the same side was lacerated; the orifice of exit was on a higher level than that of entrance at the posterior margin of the left sterno-cleido mastoid muscle. A narrowing of the larynx was produced by the arytenoid cartilage which acted as a foreign body. The autopsy confirmed the opinion that death was due to septicæmia.

Massey.

Seifferts.—*Intubation.* "Physikalisch Medicin. Gesellschaft in Würzburg," Meeting, June 14, 1890.

THE author showed instruments for intubation. He has performed this operation on a child who had been operated on by laryngotomy for papillomata of the larynx, and in a child of one and a half years on account of diphtheria. He also reports the results at present attained in Germany with this operation.

Michael.

MacDonnell, R. L., and Major, G. W.—*Aortic Aneurism with urgent Dyspnoea.* Trans. Montreal Med. Chir. Soc.

MALE patient, aged thirty-five years, suddenly seized in the street with most intense dyspnoea. On admission to the hospital, intubation was performed by Dr. Major, with but partial relief. On day following, chest examination was made by Dr. MacDonnell, when weak breathing at left pulmonary base was the only physical sign perceptible. Dyspnoea returned with great intensity several times during the six days he was under observation. Death resulted from sudden syncope. At autopsy, an aneurism of the posterior part of the transverse arch of the aorta, which compressed the left bronchus from behind, was found. Rupture had taken place into the post-mediastinum, which was distended with blood, and this had travelled along the œsophagus and torn through its walls just above the cardiac orifice, through which a quantity of blood had passed, completely filling the stomach and six feet of the small intestines. There was hæmorrhagic infarction of the fibres of the left pneumo-gastric nerve, especially of its recurrent laryngeal branch. There were also multiple cicatrices of both lungs, the remains of spots of embolism, and a recent hæmorrhagic infarction of the left lung.

A laryngoscopic examination made shortly after admission showed left abductor paralysis, with intermittent spasmodic movements of the right vocal cord. The larynx was deeply situated in the neck, and was stationary. Vagus pressure was diagnosed, and subsequently confirmed

at the *post-mortem* examination. The case presented many very interesting as well as instructive features.

George W. Major.

Gorodetzky, G. (Bendery, Bessarabia).—*Penetrating Wound of the Trachea; Rapid Recovery.* — "Vestnik Obshtchestvennoi Higieny, Südebnoi i Prakticheskoi Meditziny, June, 1890, p. 97.

THE author records the following very interesting case. An athletically made artizan, aged twenty-five, while fighting in a drunken condition, received a stab with a jack-knife. When seen, within a few moments after the accident, the man was profusely expectorating blood, and had a violent hæmorrhage from a clean-cut wound measuring four centimètres in length, and situated horizontally on the anterior surface of the neck, at the level of the jugular fossæ. The wound proved to have slanting edges (from below upwards), and to penetrate the anterior wall of the trachea, somewhat to the right from the median line, the tracheal incision being similarly transverse and measuring one centimètre in length. It was found, further, that when the patient was holding his head in the "ordinary way," the cutaneous wound was firmly closed, and the man was able to speak in a loud voice. In view of this fact, as well as in view of the quite recent character of the case, and the patient's quite satisfactory general condition, Dr. Gorodetzky (having controlled the bleeding, which could be easily done by single pressure) resolved to at once close the cutaneous wound with sutures (four in number), after which an antiseptic dressing was applied. The patient was directed to lie quietly in bed, and to most strictly abstain from speaking, in addition, no food whatever was allowed during the first twenty-four hours; while subsequently only fluid food was given. The after-course proved to be surprisingly good. For four days there were observed a trifling local subcutaneous emphysema, some cough with blood-stained expectoration, slight headache, and pain about the neck and sternum. The temperature, however, never rose above 37.6 degrees, the frequency of the pulse did not surpass 82 per minute, the breathing remained easy and free. On the fifth day the wound healed *per primam*, and the sutures could be removed; on the sixth the man was practically well; and on the seventh he was discharged in the best possible condition.

The writer feels sure that so brilliant an issue of such a serious case must be attributed to very early medical aid.

Valerius Idelson.

THYROID, NECK, &c.

Cramer (Buttstädt).—*Massage in the Treatment of Acute Catarrh of the Organs of the Neck.* "Deutsch. Med. Woch.," 1890, No. 22.

IN some cases of acute catarrh the author has applied massage, and has observed that cure is accelerated by this method. He believes that by the pressure on the veins the circulation is improved. *Michael.*

Joffery.—*Psychical Troubles and Hallucinations in Basedow's Disease.* Société Médicale des Hôpitaux, Mar. 26, 1890.

THE author communicates an interesting remark, which want of space

unfortunately does not permit us to record, and which affords a new example of psychical troubles attributable at the same time to an affection anterior to Basedow's disease, and to this malady itself. In the case of the patient of M. Joffery, a young woman of twenty-five, the cerebral troubles (hallucination of vision) were of hysterical origin, and dependent upon Basedow's disease for their development and ulterior exaggeration.

Joal.

Tenier.—*Congenital Cyst of the Neck.*

THE author showed a child, eight days old, who was born with a large tumour on the side of the neck. This tumour, hard, tense and transparent, had at the time of birth a volume almost equal to that of the head. Later it had diminished in size and had become soft and compressible. It was formed by a serous cyst, probably multilocular, remarkable at the same time on account of its size and its situation.

Joal.

Owen, Edmund (London).—*Selected Subjects in the Surgery of Infancy and Childhood.* Third Lettsomian Lecture, "Brit. Med. Jour.," Feb. 8, 1890.

THE author dealt with the operative treatment of congenital form of wry-neck, and advised the method of dividing the muscle through an open wound, so as to escape wounding the veins. *Hunter Mackenzie.*

Owen, Edmund (London).—*Selected Subjects in the Surgery of Infancy and Childhood.* First Lettsomian Lecture, "Brit. Med. Journ.," Jan. 11, 1890.

THE lecturer commenced with the treatment of enlarged glands of the neck (which he believed to be generally due to the entrance of septic poisons into the system by the pharynx and tonsils), and urged their early removal. He described the *technique* of the operation. Congenital cystic hygromata were best left alone, or at the most tapped. They invariably tended to absorption. Hydrocele of the neck was due to non-closure of one of the branchial clefts, with subsequent distention of the cavity. It differed from an hygroma in having a definite rounded contour, and in consisting of a single cyst, which, on evacuation, left the neck its normal shape. They were easily cured by incision and drainage.

Hunter Mackenzie.

Marano (New South Wales).—*Case of Goitre.* "Brit. Med. Journ.," Jan. 11, 1890. New South Wales Branch, B.M.A., Nov. 1, 1889.

THIS case was treated by electrolysis. The result is not stated.

Hunter Mackenzie.

Mosler.—*Thyroid Tumour.* "Greifswalder Medicinischer Verein." Meeting, June 7, 90.

THE author showed a tumour of the thyroid gland, with secondary exophthalmos, in a patient aged fifty-seven years. The tumour was a scirrhus and will be extirpated.

Michael.

Wölfler (Graz).—*Surgical Anatomy and Pathology of Goitre and Accessory Goitre.* "Langenbeck's Archiv.," Bd. 40, Heft 2.

THE development of goitres and enlargement of them is favoured by pregnancy. In eight of thirty-six cases the influence of pregnancy was very remarkable; therefore, the disease more often occurs in women. They increase in a very short time, and also often disappear in the same manner. In such cases, therefore, an expectant treatment is indicated.

By producing impediments of circulation, goitres have often a deleterious influence on the heart. They can produce heart failures and palpitations also in such cases which certainly are not cases of Graves' disease. They often produce ectasis of the venous blood-vessels and symptoms of irritation of the vagus nerve. Large hard goitres can also produce compression of the carotid and of the thyroid artery. By pressure on the laryngeal nerves paralysis of the vocal cords are sometimes produced. In such cases the prognosis of operative interference is more unfavourable. By pressure on the auricular branch of the vagus pains in the ear are sometimes caused. Pressure on the air tube often produces stenosis of the trachea, and atrophy of its cartilages and abnormal weakness of them. Such a weakened trachea can be completely closed by a movement of the head, and so sudden death is occasioned. Also during operation these compressions are very dangerous. The trachea also can be dislocated. Beneath the point of compression dilatation of the air tube is sometimes found. The larynx also can be atrophied or dislocated by torsion. Compression of the œsophagus by retro-pharyngeal goitres may produce difficulties of swallowing, so that the use of the œsophageal tube becomes necessary. Sometimes the muscles, and, in rare cases, the vertebrae, can be atrophied by pressure of the goitre. Sudden death of goitre patients, so called "kropftod," may be caused by compression or torsion of the trachea, affection of the heart, or paralysis of the nerves.

Michael.

Lennox-Browne. — *Congenital Enlargement of the Thyroid—Removal—Recovery.* "Lancet," Aug. 9, 1890.

A GIRL, aged ten, was born "with a lump in her neck the size of a marble, which has been growing ever since." On November 21, 1889, it reached the size of a foetal head at seven months, and was divisible into two parts, the right being less prominent, globular, and with secondary lobules, elastic and non-adherent to the skin. The prominent left portion was roughly quadrilateral, elastic, and more resistant, had secondary nodules, was in front intimately adherent to the skin, which was dusky blue, ulcerated in places, and marked with distended superficial veins. The ulcers exuded thin, serous fluid, and were devoid of granulation. The whole tumour was fairly movable from deep structures, but evidently had its origin from attachment to the thyroid gland. There were no enlarged glands, and the child, though thin and anæmic, was apparently in good health. On puncturing the tumour blood only was drawn off, the punctures for two or three days afterwards exuding thin, serous fluid, microscopic examination of which was negative. While in hospital for a month the tumour appreciably increased in size. The left lobe and isthmus of the thyroid, and a portion of the right lobe, were removed by Mr. Browne. Less than a month after operation the child was up, and the wound healed. Sandbag pillows prevented contraction of the neck from cicatrization. The tumour was eight and a half ounces in weight, hard, and grating on section, thickish white in appearance, and intersected in all directions by dense fibrous tissue, enclosing numerous small cysts, in the walls of which were several cartilaginous flakes. Microscopically it proved to be a fibro-cystic goitre, which originated from the isthmus of the gland. The case had been diagnosed by others as a

cystic sarcoma. This is the eleventh case in which Mr. Browne has more or less entirely removed the thyroid gland, and all have recovered with only one recurrence. In the latter case the operation was confined to removing the isthmus.

R. Norris Wolfenden.

Horsley, Victor (London).—*Note on a Possible Means of Arresting the Progress of Myxœdema, Cachexia Strumipriva and Allied Diseases.* "Brit. Med. Journ.," February 8, 1890.

THE author deals with the transplantation of the gland into the peritoneal cavity, after thyroidectomy, as originally designed and carried out by Professor Schiff. The author has found that the thyroid gland of the sheep very closely resembles that of man, and he accordingly suggests transplantation of the thyroid of this animal in those diseases in man which are associated with wasting of the gland, or with its removal.

Hunter Mackenzie.

Holmsen, Cato (Norway).—*A Case of Myxœdema.* "Norsk Mag. for Lægevidenskaben," March, 1890.

DESCRIPTION of a case of myxœdema in a lady, aged thirty-four when the disease began. Treatment with galvanic electricity of the head, the neck, and the sympathetic nerves improved for some time the subjective symptoms. Whether there was atrophy of the thyroid gland could not be stated owing to the thickness and stiffness of the skin. This is only the third case on record in Norwegian literature.

Holger Mygind.

Birch.—*Myxœdema and Cretinoid Degeneration.* "Volkmann's Vorträge," No. 357.

REVIEW of the literature of this disease

Michael.

Waldo (Bristol).—*Case of Acromegaly.* "Brit. Med. Journ.," Feb. 8, 1890. Bristol Medico-Chirurgical Soc., 8 Jan., 1889.

NOTES of the case of a man, aged fifty-four, the subject of this disease. Bulbar paralysis and convulsions were latterly present. At the post-mortem examination "the brain was found to contain cavities in cerebrum and cerebellum."

Hunter Mackenzie.

Silcock (London).—*Acromegaly.* "Brit. Med. Journ.," Jan. 4, 1890. Western District of the Metrop. Count. Branch, B.M.A., 21 Dec., 1889.

EXHIBITION of three cases, two women and one man. The exhibitor believed that these cases were more common than was commonly supposed, simply because they had not been looked for.

Hunter Mackenzie.

NOTES.

Dr. E. A. SPILSBURY has been appointed Lecturer on Laryngology and Rhinology in the Trinity Medical College of Toronto, and Clinical Instructor in these subjects at the General Hospital.

Dr. C. TROW has been appointed Clinical Lecturer on Diseases of the Eye and Ear in the Trinity Medical College of Toronto.

A department for Throat and Nose Diseases has recently been created at the Cincinnati City Hospital, Drs. SATTLER and PIVERT having been elected Laryngologists and Rhinologists.

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THE BRITISH MEDICAL ASSOCIATION MEETING, 1890, p. 418.

THE THROAT AND VOICE.

LONDON.]

OCTOBER.

[1890

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THE
JOURNAL OF LARYNGOLOGY
AND RHINOLOGY.

VOL. IV.

OCTOBER, 1890.

NO. 10.

The Editors do not hold themselves responsible for opinions expressed by contributors.

ON THE INDURATIVE AND PROLIFERATIVE
FORMS OF TUBERCULAR LARYNGITIS.¹

By MM. le Drs. GOUGUENHEIM, Médecin de l'Hôpital Lariboisière,

AND

J. GLOVER, Ancien Interne de la Clinique Laryngologique
de l'Hôpital Lariboisière.

(Continued.)

CASES.

Case I: Indurative proliferating tubercular laryngitis: aphonia; dyspnoea; suffocative attacks; pulmonary tuberculosis; operation; disappearance of the aphonia and dyspnoea.

Beaum..., Auguste, aged thirty-one, blacksmith, admitted to Lasègne Ward, November 3rd, 1889.

Family history: Father in good health, aged sixty-nine; mother died at age of forty-nine, from cancer of uterus; a sister died at twenty-four from puerperal peritonitis. Married, two children in good health, two died young from chest affection. Previous history: no antecedent chest affection. His illness commenced three years previously with frequent and fleeting attacks of dysphonia; the patient, blacksmith by trade, had been accustomed to work in a very hot atmosphere, and, consequently, in leaving his forge, was exposed to sudden variations of temperature. The dysphonia had always been more marked in the morning, and at the moment of passing from an elevated to a lower temperature; frequent cough and expectoration; slightly marked dysphagia. The patient's health remained fairly good during the year 1887, but in the earlier months of 1888 the dysphonia became complete aphonia; respiration frequently became embarrassed, and he could no longer perform without effort the heavy demands of his occupation. In January, 1889, he was ordered creasote and iodoform pilules; the larynx was not specially treated.

¹ Translated from the "Annales des Maladies de l'Oreille, du Larynx, du Nez, et du Pharynx," edited by A. Gouguenheim, Médecin de l'Hôpital Lariboisière, August, 1890.

In June, 1889, on several different occasions, suffocative attacks supervened, and respiration became permanently embarrassed, gradual emaciation, and slow loss of strength; sensation of burning in stomach; no pyrosis; cough slight, chiefly in the morning.

November 7th—Present condition: Robustly built, but pale, with wasted cheeks and prominent cheek-bones, pale blue sclerotics and long eyelashes, nails clubbed. Laryngoscopic examination: Inflammation of both aryteno-epiglottidean folds; epiglottis dark red, and a little swollen; vocal cords inflamed. On the middle of the edge of the right cord, at a point a little nearer the anterior than the posterior commissure, a growth was visible the size of a small cherry stone, the surface of which was nearly smooth, and of rectangular outline; this growth touched the corresponding part of the opposite cord, and was visible in its whole extent, especially during inspiration. The tracheal mucous membrane presented no appearance of importance (pl. i., fig. 1). There was complete aphonia, breathing was painful, without stridor. Lungs: On percussion beneath and over the right clavicle, a high-pitched note was elicited. On auscultation, the respiratory sounds were harsh, and inspiration of "cog-wheel" character; cough and expectoration were slight. Heart: sounds and limits were normal. The tongue was a little coated, but the appetite good, and there was no dysphagia.

Treatment (general): Syrup de bourgeon de sapin, julep diacode, cod liver oil. Treatment (local): It was arranged that, after preliminary antiseptic rubbings of the larynx, the patient should be treated by operation. Arrangements were made for the patient to have the larynx rubbed with a solution of menthol in oil every day.

November 16th: On the 9th, 11th, 12th, 13th, 14th, and 15th of this month laryngeal rubbings of menthol were carried out. Larynx: Mucous membrane smooth, without any ulceration, a little less inflamed than on the previous days. Aphonia and slight dyspnoea.

First operation: Local anaesthesia by means of cocaine. The larynx was brushed with a sponge borne on the laryngeal sponge carrier. The outgrowth was removed by means of the cutting forceps from the right vocal cord, and the piece removed was placed in alcohol for subsequent microscopical examination. After the operation, which was performed without the production of an attack of dyspnoea, the wounded surface was covered by iodoform, which was insufflated. The patient breathed quite freely. The laryngoscope showed the hollow made by the instrument. November 18th: Dysphonia from time to time. Aphonia in the morning. Larynx: Tumefaction of the laryngeal mucous membrane was very marked at the level of the right arytenoid region; and of the right cord, at the point where the instrument was used two days before. The depression left by the operation was clearly seen on the edge of the cord. There was considerable swelling of the right ventricular band, the aspect of which was irregular. Inflammation of the epiglottis and of the aryteno-epiglottidean fold (pl. i., fig. 2). Painting with menthol and creasote in oil every day. November 21st: Respiration unembarrassed; dysphonia still present, but the voice clearer. General state good. November 26th—Larynx: The arytenoid region was rather less swollen.

PLANCHE I

Fig. 1.



Fig. 4

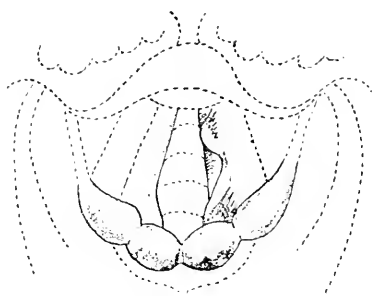


Fig 2.

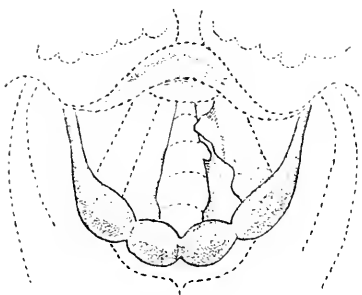


Fig 5

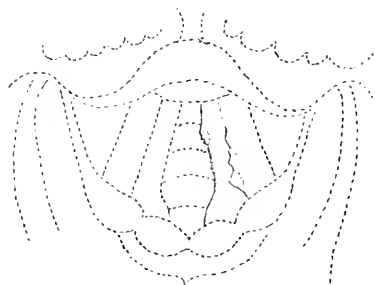


Fig 3

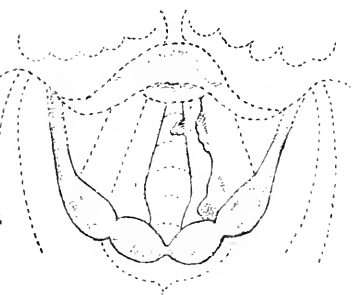
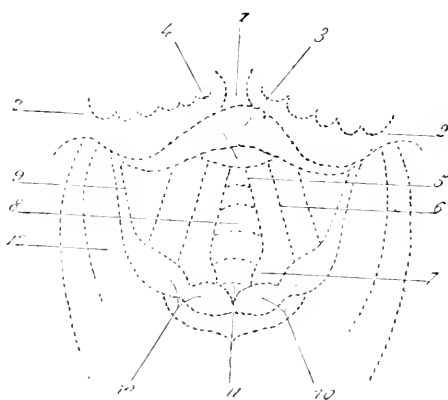


Fig 6



The still swollen right ventricular band partially hid the vocal cord of the same side, but not sufficiently to prevent a small portion of proliferating pathological tissue on this cord to be visible, a portion which had not been seized by the instrument. This piece of tissue, situated quite anteriorly, and close to the commissure, had proliferated, and it was necessary to resort to operation once more. The epiglottis was still rather red (pl. i., fig. 3).

Second operation : Laryngeal painting with menthol and creasote in oil. Local anæsthesia by means of cocaine. Extirpation of the remainder of the proliferating tissue of the right vocal cord. Iodoform insufflation. November 29th : At times the voice was almost clear, but rather deep-toned. The mucous membrane of the right ventricular band was again swollen, with a persisting tendency to conceal the vocal cord of the same side (pl. i., fig. 4). December 7th : The right vocal cord was a little thickened and tumefied, but no relapse had occurred. Ventricular band of the same side hardly at all red and swollen (pl. i., fig. 5). Voice lower in pitch than before. No dysphagia ; no laryngeal stridor during respiration. The patient left hospital.

Case II. : Indurative and vegetative tubercular laryngitis (right vocal cord and inter-arytenoid region). Ulceration, dyspnœa, dysphagia, pulmonary tuberculosis, alcoholism. Operation : cessation of the dyspnœa ; dysphagia relieved.

Del., Auguste, aged thirty-six, drayman. Family history : Father, aged sixty, in good health ; mother, aged fifty, in good health ; married ; one child. No history of tuberculosis as regards collaterals. Personal history : The patient had been addicted to alcoholic excess from the age of nineteen ; his surroundings had been unhealthy, and he had worked hard and lived badly. His health had been good until 1879 ; at the end of this year he had right pleurisy. On account of this illness the patient was admitted to the Hospital Beaujour, where he remained four and a half months. No puncture of the chest wall was performed ; blisters were applied to the right chest. From this time he had suffered each winter from cough ; there had never been hæmoptysis ; during the last four or five months he had lost flesh slightly. For fourteen months there had been slight hoarseness. Dysphagia, the pain more marked on the right side. Present condition : on November 9th, 1887, he attended for the first time at the Lariboisière ; he was emaciated.

Laryngoscopic examination : Arytenoids reddened, but little swollen ; the right arytenoid a little deviated backwards ; on both sides the aryteno-epiglottidean folds swollen ; the vocal cords uniformly reddened, but with normal contour ; on the right vocal cord, near the processus vocalis, a rounded projection existed. The inter-arytenoid region was quite filled up by the swelling of the mucous membrane, which, on the left side, covered and hid the insertion of the cord into the apophysis, but on the right was level with the glottis ; thus the projection was more marked on the left than on the right. The surface was unbroken, except for the presence, in the centre, of a small circular ulceration, covered with whitish mucus (pl. ii., fig. 1). No adenopathy ; dyspnœa and stridor with respiration ; no wheezing ; dysphonia. Lungs : On the right side,

PLANCHE II

Fig 1

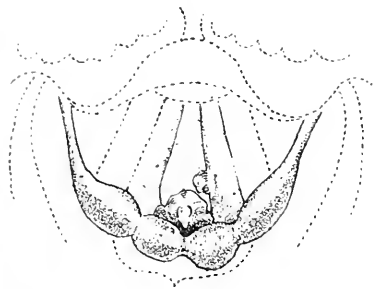


Fig 4

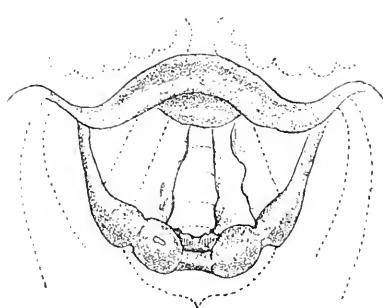


Fig. 2

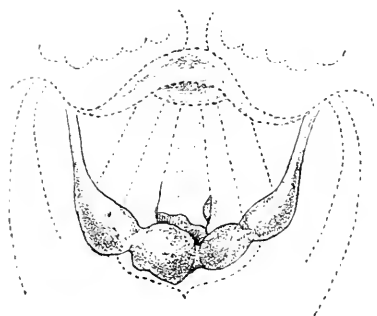


Fig 5.

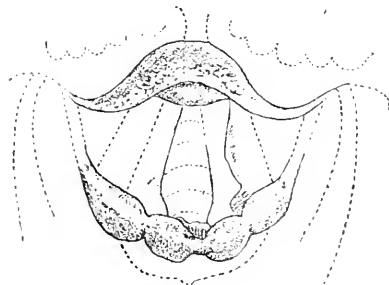


Fig. 3

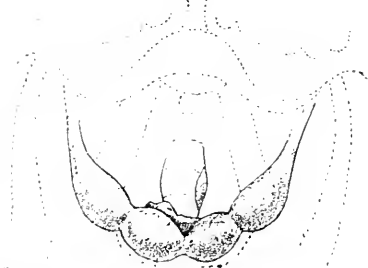
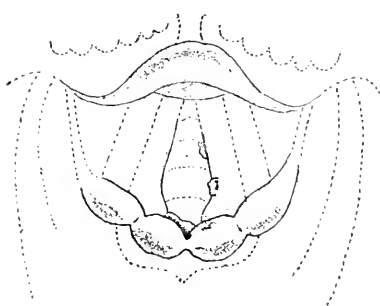


Fig 6



and behind, loss of resonance on percussion over the middle of thorax; weak vesicular murmur; slight morning cough. On the left, and in front, similar physical signs, and also cog-wheel breathing.

As regards the digestive organs, some very slight troubles were complained of. Digestion rather slow and difficult, appetite good, no vomiting. The dysphagia was rather severe, and caused pain, rather more pronounced on the right side; this might possibly be due to the displacement of the right arytenoid, and to the embarrassment thus caused. Treatment: Cod liver oil and creasote. It was decided to paint the larynx every day with menthol and creasote in oil, and later to operate.

November 21st: The paintings have caused a little more marked redness of the laryngeal mucous membrane. First operation: Since the 9th November eight paintings of the larynx had been effected. After local anaesthesia by means of cocaine, the small pre-arytenoid tumour was removed. The fragments were placed in alcohol for microscopic examination. They were very hard. The whole was not removed. Immediately after the operation iodoform was applied to the wounded surface; every morning a painting was arranged to be executed with menthol, as before. November 21st, evening: No fever; somewhat pronounced dysphagia during the day; the arytenoid region was rubbed with iodoform. November 23rd—Larynx: After the first tentative operation, there ensued a more pronounced swelling of the arytenoid region, and of the epiglottis. The mucous membrane covering the left arytenoid cartilage was more turgid, and the right cartilage was pushed over towards the right, away from the median line. The small excrescence on the right cord showed a tendency to diminish in size (pl. ii. fig. 2). Dyspnoea and dysphagia.

November 26th: On this date the arytenoid region had almost regained its regular outline; the mucous membrane of the inter-arytenoid region, which presented in front a slight irregular edge, was completely visible and much less swollen. The ulceration of its surface had disappeared (pl. ii., fig. 3). The patient's general condition was good. Second operation performed with ordinary precautions. November 30th: Breathing continued to be noisy; attacks at night of suffocation (oxygen inhalations and dry cupping). Third operation: Almost complete removal of the proliferating tissue of the arytenoid region. December 3rd—Larynx: Swelling and pronounced redness of the epiglottis; prominence of the tubercle of Czernak; the arytenoid region widened by the fact of the displacement of the two arytenoid cartilages; between them the remainder of the tissue attacked by the instrument was visible (pl. ii., fig. 4). In the evening the dysphagia became so marked that it was necessary to paint the pharynx with a solution of cocaine. December 9th: Respiration easier, and dysphagia less pronounced. Larynx: Diminution of the swelling; distention of the arytenoid region, which was still a little widened (pl. ii., fig. 5). December 12th: Breathing easy; less stridor the last few days; the patient swallowed with greater ease; the dysphonia persisted. Larynx: The aryteno-epiglottidean region was still a little red and swollen; the arytenoid region presented only two spots

PLANCHE III

Fig 1

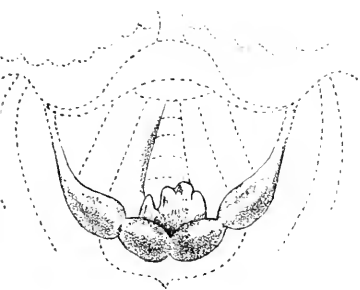


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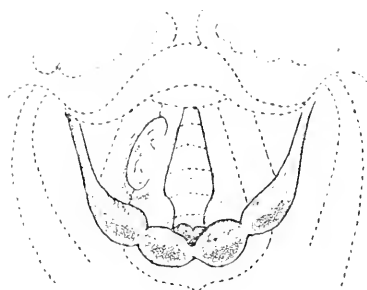


Fig 2

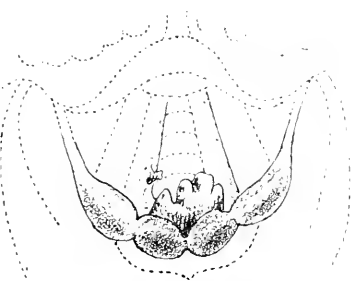


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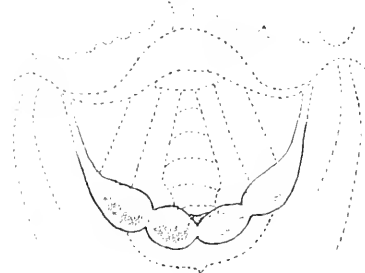


Fig 3

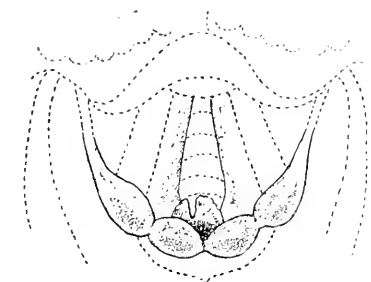
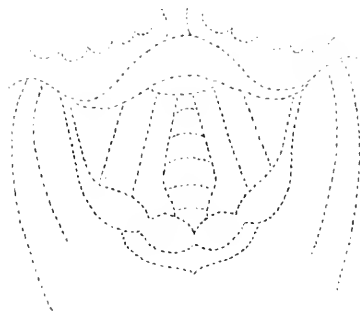


Fig 6



of a ragged and irregular outline. At this date there were two small prominences on the edge of the right vocal cord (pl. ii., fig. 6). The general condition remained good. The patient was under observation until the outbreak of the influenza epidemic; he then left the hospital to make room for influenza patients, and has not been seen since.

Case III.: Indurative proliferating tubercular laryngitis (inter-arytenoid region); aphonia; slight embarrassment of breathing. Operations: disappearance of aphonia; multiple tuberculosis; pulmonary tuberculosis; tubercular affection of sub-maxillary and cervical glands; synovitis of the sheath to the extensor tendons of the left hand.

Jeane B., aged twenty-eight, came to the out-patient room early in November, 1889; family healthy; mother died, aged fifty-two, of strangulated hernia; father died insane, at the Asylum Ville Evrard; two sisters in good health. Previous history: From infancy the patient had felt weak and languid, without definite illness; anæmia. The patient owned to excesses of all kinds. During the years 1886 and 1887 she had endured great privations, but, in spite of all, she continued to overtax herself. No history of alcoholism. In March, 1887, she noticed for the first time the appearance of redness and swelling on the back of the left hand in the course of the sheath of the tendons of the middle and index fingers. A fumigating synovitis of these sheaths soon afterwards developed. By September 20th an operation had become necessary, and scraping away of the diseased tissue was performed in La Charité, in Professor Trelat's Ward. She had previously been under the professor for an affection of the cervical and sub-maxillary glands, which were treated by the injection of the glands with iodoform in ether, and which partially healed. For four months the patient lost flesh; was feverish in the evening, with sweating and loss of appetite; cough and abundant expectoration. But later a considerable improvement occurred, and at this date the general condition was satisfactory; appetite returned, and the patient gained strength. She came to the hospital for advice on the laryngeal condition. For four years there had been occasional hoarseness, and in May, 1887, the voice disappeared, and this aphonia continued three months. Present condition: November 9th. rather pale and wearied-looking; no very marked wasting; the wound due to the operation on the left hand almost entirely healed; but there still remains in front, near the head of the third metacarpal bone, a small superficial area, which is still red and tender. In the last six weeks there has been a tendency to the reappearance of the cervical adenitis. At the present time the swelling of the glands is well marked. Complete aphonia of one month's duration. This aphonia had caused great inconvenience to the patient, who, being employed in a business, had been compelled to give up her situation, on account of not being able to talk. Lungs: Loss of resonance on percussion over upper lobe behind, dry crackling. Treatment: Cod liver oil, creasoted wine.

November 21st: Laryngoscopic examination; well-marked inflammation of the aryteno-epiglottidean folds. Mucous membrane of arytenoid remarkably scarlet, without being very swollen. The arytenoid region occupied by a large vegetative mass of irregular surface. The diseased

PLANCHE IV.

Fig. 1

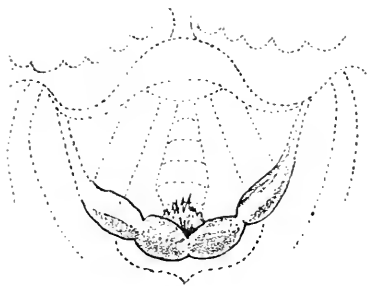


Fig. 4

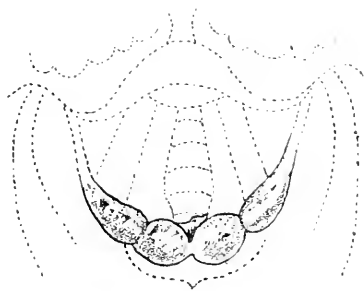


Fig. 2

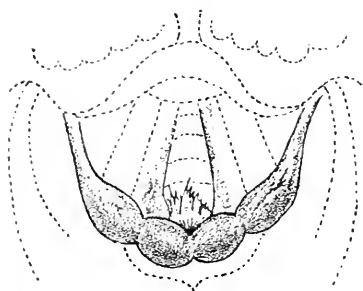


Fig. 5

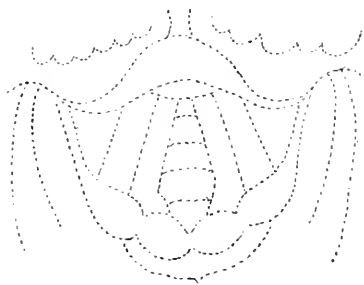


Fig. 3

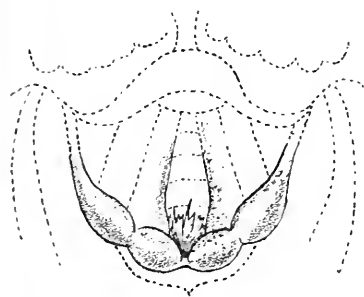
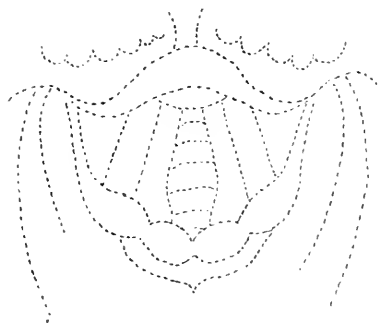


Fig. 6



tissue divided on the side of the rima glottidis, and a little to the left by a deep fissure, which widens and narrows alternately during phonation. The pathological tissue occupied a plane higher than that of the cords, and did not appear to present a point of attachment at the level of the glottis, nor in the sub-glottic inter-arytenoid region. Redness of the middle portion of the left vocal cord (pl. iii., fig. 1). Complete aphonia; slightly-marked dysphagia; slight embarrassment of breathing. It was decided to perform partial ablation after previous rubbing with antiseptics. The rubbing was conducted as in the other cases.

December 3rd: The aphonia persists; seven rubbings had been carried out since November 21st. During the last three days the dysphagia a little more marked; breathing still embarrassed. Larynx: The arytenoid region more swollen. On the posterior extremity of the left vocal cord a small projection appeared; diffused redness of both vocal cords. December 4th: First operation. December 5th: Dysphonia in the morning; no dysphagia; breathing more easy. Larynx: The morbid proliferating tissue reduced to about half its former size. The small eminence on the left vocal cord no longer visible. Bilateral inflammation of the cords, less marked on the right side (pl. iii., fig. 3). Rubbing of the larynx daily for five days. December 15th: Second operation. December 16th: In the evening the patient could speak, the voice being lower in pitch than before the affection of phonation commenced. December 17th: Larynx: On the left ventricular band a somewhat extended vascular erosion; inflammation of the aryteno-epiglottidean folds; less redness of the vocal cords, whose edges, however, are swollen. The arytenoid region is now almost wholly cleared; the glottis has free play (pl. iii., fig. 4). Rubbing of arytenoid region with lactic acid. The aphonia has disappeared, but some dyspnoea exists, and the pitch of voice is low. December 21st: The patient left hospital, but returns for examination.

1890, January 10th: Larynx: Scarcely any swelling of the aryteno-epiglottidean region; voice of low pitch; inter-arytenoid mucous membrane a trifle swollen (pl. iii., fig. 5). Lactic acid to larynx. General condition good. March 10th: We have heard of the patient, who remains in the same condition as regards the larynx; she speaks, but the pitch of voice is deep. Laryngoscopic examination not practised. Since this date we have heard of the patient, but no laryngoscopic examination has been made.

Case IV.: Indurative and villous tubercular laryngitis: marked dysphagia; aphonia; embarrassment of breathing; pulmonary tuberculosis; chronic rhino-pharyngean catarrh; ozæna; alcoholism. Operation, and disappearance of symptoms.

Delono..., Eugene, aged forty-seven; admitted to Lasègne Ward, 20th October, 1889, having been treated as out patient for three weeks. Nothing specially noteworthy as regards hereditary antecedents.

Previous history: Habitual good health; no previous illness; alcoholic excess for five years (wine); dreams; nightmares; expectoration of phlegm on rising in the morning; trembling of hands and excessive mobility of face.

PLANCHE V

Fig 1.

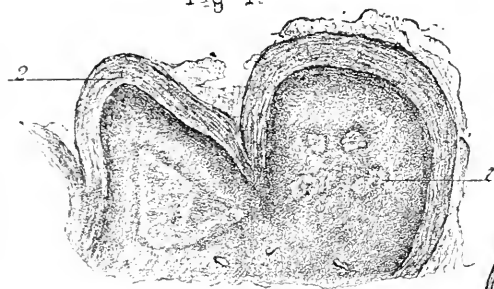


Fig 2

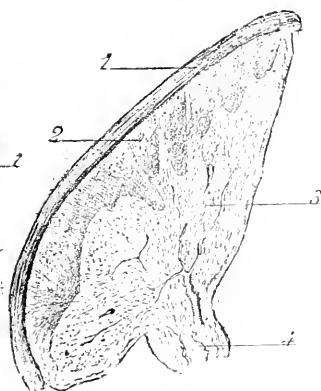


Fig. 3

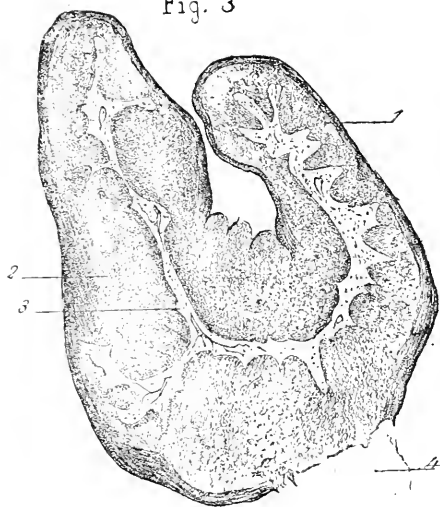


Fig. 4

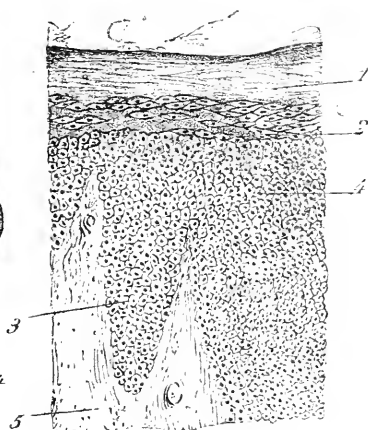


Fig. 5.

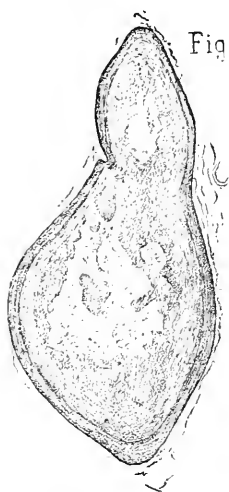


Fig. 6.



September 10th: On this date the patient came the first time for consultation; loss of flesh for three months; night sweats; cough, especially in the morning; marked dysphagia; loss of appetite. Larynx: diffused redness of the laryngeal mucous membrane; arytenoid region and folds swollen; arytenoid region occupied on the median line by a villous proliferation of the mucous membrane, at the level of the glottis. The villusites are rather long, movable, very soft, and covered with mucus. Dysphonia; rubbing of larynx with chloride of zinc. Lungs: Loss of resonance on percussion, and crepitation beneath right clavicle. Breath sounds louder, of cog-wheel character; more intense redness of the mucous membrane, which is covered with viscid muco-pus, both abundant and fetid; mucous membrane of the right turbinated bone hypertrophied, the free edge of this bone likewise projects, and it can be easily moved with the stylet. Buccal pharynx: red, and covered on its posterior wall by muco-pus, escaping from the posterior nares; nasal irrigation every day by means of the syphon with the following solution, used lukewarm: creoline 10 drops, water (slightly salt) 1 litre—at each irrigation $\frac{1}{2}$ litre to be used.

Oct. 25th: The rubbing with chloride of zinc solution has been replaced by that with a solution containing lactic acid. November 7th: Complete aphonia for some days. Embarrassment of breathing; marked continued dysphagia; salivation. Larynx: Arytenoid region and aryteno-epiglottidean folds more swollen than at the examination on September 10th. The inter-arytenoid region appears to be more swollen; the cords reddened (pl. iv., fig. 2). In view of the absence of satisfactory result from the application of chloride of zinc and of lactic acid in the case of this patient, it was decided to operate after preliminary antiseptics of the larynx. Lungs: Condition unaltered. The general condition remained satisfactory. November 19th.—Larynx: The tumefaction of the posterior portion of the larynx was less marked, but the redness continues marked; bilateral inflammation of the cords; dysphonia. November 23rd.—Operation: Rubbing with oil of menthol daily since November 7th; local cocaine anesthesia. Tentative removal of morbid tissue. The tissue being very friable, could not be grasped *en masse*; it was removed piecemeal by two introductions of the instrument at the same sitting. The employment of the curette did not seem advisable after the laryngoscopic examination made immediately after operation. After operation insufflation of iodoform. November 24th.—Larynx: The day after the use of instruments the mucous membrane of the arytenoid region and of the aryteno-epiglottidean folds a little less swollen (pl. iv., fig. 4). Aphonia continues. December 10th: The voice reappeared yesterday. Dysphagia very slight and breathing more free. The patient will continue to attend for purpose of examination.

EXPLANATION OF PLATES.

PLATE I.

The dotted lines show the normal appearance of the laryngeal image. The unbroken lines and shading show the pathological changes.

Fig. 1 (case 1—Beaum...). Appearance presented to laryngoscopic examination, November 7th, 1889.

Fig. 2. November 18th.

Fig. 3. November 26th.

Fig. 4. November 29th.

Fig. 5. December 7th.

Fig. 6, 1. Median glosso-epiglottidean fold.

2, 2. Lateral glosso-epiglottidean fold.

3. Epiglottis.

4. Tubercle of Czermak.

5. Vocal cord.

6. Ventricular band.

7. Insertion of the vocal cords into the processus vocalis.

8. Glottis.

9. Aryteno-epiglottidean folds.

10, 10. Cartilages of Wrisberg and Santorini.

11. Posterior commissure.

12. Pyriform sinus.

PLATE II.

Fig. 1 (case 2—Del...). November 9th, 1889.

Fig. 2. November 23rd.

Fig. 3. November 26th.

Fig. 4. December 3rd.

Fig. 5. December 9th.

Fig. 6.

PLATE III.

Fig. 1 (case 3—Bass). November 21st, 1889.

Fig. 2. December 3rd.

Fig. 3. December 8th.

Fig. 4. December 17th.

Fig. 5. January 10th, 1890.

PLATE IV.

Fig. 1 (case 4—Delono). September 10th, 1889.

Fig. 2. November 7th.

Fig. 3. November 19th.

Fig. 4. November 24th.

Fig. 5.

Fig. 6.

PLATE V.

Fig. 1. Fragment of tissue removed from case 2 (ocular 1, objective 4, Véric). Tubercular foci in process of evolution.

1. Tubercular granulations.

2. Horny stratum of flat heaped-up epithelial elements.

Fig. 2. Fragment from case 2 (ocular 1, objective 2, Véric). Small indurated mass, which has proliferated in mushroom fashion (section at point of contact with laryngeal mucous membrane). No tubercular focus is found in this section.

1. Thick and dense horny layer, consisting of flat and heaped-up epithelial elements.
2. Zone of hypertrophied papillæ.
3. Very vascular connecting reticulum.
4. Junction with the laryngeal mucous membrane.

Fig. 3. Case 1 (ocular 1, objective 2, Véric). Topographical figure showing the appearance presented by a papillomatous arborescent mass of proliferous tissue occurring in indurative vegetative tubercular laryngitis, somewhat enlarged (section at junction with mucous membrane).

1. Dense horny layers of epithelial elements.
2. Zone of papillary hypertrophy.
3. Reticulum.
4. Junction with mucous membrane.

Fig. 4. Papillary hypertrophy from the section (fig. 2) greatly magnified (ocular 1, objective 6, Véric).

1. Corneous superficial layer.
2. Small flattened and heaped-up cells.
3. Papilla of medium size hypertrophied.
4. Base of another hypertrophied papilla of larger dimensions.
5. Central connecting tissue.

Fig. 5. Fragment from case 3 (ocular 1, objective 2, Véric). Small vegetation, of which only the indurated shell remains, the centre being hollowed out by tubercular caseation.

Fig. 6. Case 3 (ocular 1, objective 4, Véric). Tubercular infiltration.

We, in this place, return our thanks to M. le Dr. Toupet, Secretary of the Anatomical Society, who, in the anatomico-pathological portion of this paper, has been kind enough to give us his valuable assistance and advice.

At the time of going to press we have not received from Mathieu and Co. the plates representing the instruments; we therefore publish this paper without them—they will appear in a subsequent number.

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Gouguenheim : *Papillomas et Tuberculoses du Larynx*, in *Annales des Maladies du Larynx*. September 9th, 1889.

Note to the section on pathological anatomy, page 367 : It should be added, that besides this variety of laryngeal phthisis there is another form of the same disease first described by MM. Gouguenheim and Tissier in their treatise. Several others have also published isolated cases of the same kind. These small primitive swellings present all the histological characters of tuberculosis at different periods of its evolution.

It is this form of laryngeal tuberculosis that is called polypoid or vegetating ; other writers describe it as tubercular tumour of the larynx, pseudo-polypous laryngeal phthisis.

See on this subject :

Ariza, *La tisis laryngea* (*Anfiteatro Anatomico Español*, 1877, p. 149, et 1878, p. 135 *La Tuberculosis Laryngea Poliposa y Végétante. Resena del 5º Ejercieto del Instituto de Terapeutica*, Madrid, 1885, p. 365.

Isambert, *Ann. des Mal. de l'Oreille*, 11, p. 175.

John Noland Mackenzie, *Tubercular Tumours of the Windpipe*, *Arch. of Med.*, New York, v. iii., No. 2, 1884.

Schnitzler, *Wiener Med. Presse*, 8 Avril, 1885. *Cas communiqué au Congrès de Copenhagen*, Août, 1884.

Percy Kidd, *Cas de Végétation Laryngée Tuberculeure Primitive*, in *Trans. Clin. Soc.* Note on tuberculous tumours of larynx. *St. Bart. Hosp. Reports*, xxi., p. 37, 1885. Fox, Lublinski, Schaeffer, Bonome Delio, Heryng, Hunter Mackenzie.

THE TENTH INTERNATIONAL MEDICAL CONGRESS, BERLIN.

4th to 9th August, 1890.

LARYNGOLOGICAL SUB-SECTION.

Report by Dr. MICHAEL (Hamburg).

THE tenth International Congress was more successful in every manner than any medical congress or other medical association that has yet been held. More than five thousand six hundred physicians of the whole world were assembled, and the hospitality of the German Empire, the city of Berlin, and of our Berlin colleagues, made the period of the congress for all present an agreeable remembrance. We cannot here describe the festivities given by the Emperor, the city of Berlin, and the physicians of Berlin ; the general meetings at the Circus Reng visited by many of the stars of medicine from all parts of the world ; the interesting speeches made by the leaders of our science, and the medical exhibition ; we will only give a report of the laryngological sub-section

its labours and its amusements, and of the laryngological portion of the exhibition. More than two hundred laryngologists assembled, and more than seventy papers were read. Our sub-section was one of those which completed its whole function, and great zeal was exhibited at all the meetings, which, in spite of the great heat, and with the thermometer higher than 20° R., were always well frequented. Our meetings began at eight o'clock, and lasted, excluding two hours for breakfast, till four or five o'clock in the afternoon. The first evening the members of the sub-section assembled in the park of the exhibition. On Wednesday was given the dinner of the sub-section, at which ladies were present. On Friday an excursion was made to the Haresee, arranged by the Berliner Laryngologischer Gesellschaft, in which ladies also participated. On other days we were invited by our hospitable Berlin colleagues. Every member of the sub-section received a copy of the annual report of the first year of the Berliner Laryngologischer Gesellschaft. The presidents of the laryngological portion of the exhibition were B. Fränkel, P. Heymann, and Schoetz, and they arranged it in a very instructive manner. The exhibitions consisted of instruments, specimens, and instructive reproductions. Of the great number exhibited, we may mention here micro-photographs of diseases of the nose by Albaracin (Chili); several instruments by the manufacturers — Dannenberg (Hamburg), Dorfel (Berlin), Gompez (Wien), Haertel (Breslau), Hahn and Löeschel (Danzig), Hirschmann (Berlin), Pfau (Berlin), Schmid (Berlin), Schwabe (Moskau), Walter Biondetti (Basel), Windler (Berlin). Dr. Flatau (Berlin) showed histological specimens of the relations of the nasal lymph channels to the nervous central organs; Prof. Fränkel rare pathological specimens and sections, the originals of photo-gravures collected in an atlas, which will shortly appear. Paul Heymann exhibited a wonderful collection of specimens of diseases of the antrum of Highmore; Prof. Krause his instruments, and a collection of historical interest, the first instruments for laryngology used by Czermak; Noltenius (Bremen) a very practical mirror for laryngological demonstrations; Michael (Hamburg) an album, containing five hundred pictures of laryngeal diseases painted in water-colours, and a new mandarin for soft œsophageal tubes; Prof. Tobold a collection of laryngeal diseases in plastic reproductions.

That it was possible to fulfil so vast an amount of work as was done in our sub-section must be attributed to the merit of Prof. B. Frankel, who presided with indefatigable ardour, and arranged the proceedings in a very practical manner. He was (as related) the president of the organization committee, and was elected at the first meeting as president of the sub-section. The elected secretaries were:—Paul Heymann and A. Rosenberg (Berlin), Luc (Paris), Paul Koch (Luxembourg), Brebion (Lyon), French (Brooklyn), Delavan (New York), Scanes Spicer (London), Onody (Budapesth), Strazza and Nikolay (Italy), Laurent (Hal), Thorner (Cincinnati). The honorary presidents proposed by the organization committee, and elected by acclamation at the first meeting, were:—Bosworth and Leferts (America), Semon (England), Gouguenheim, Moure (France), Störk, Schrötter, Schnitzler (Austria), Schmiegelow (Scandinavia),

Rauchfuss and Rühlmann (Russia). Capart (Belgium). Brongest (Holland), Valentin (Switzerland), Massei (Italy). Beyond these and the Berlin specialists, who were nearly all present, we noticed the presence of several well-known laryngologists. From Germany : M. Schmidt, Bresgen, Vohsen, Beschorner, Gottstein. Jurasz. E. Fränkel, Michael, Michelson, Rosenfeld, Rosenbach, Schech, Seiffert, Lemburg, Schmidt. Luyzen, Hopman, Tornwaldt, Kayser, Moldenhauer. From England : Lennox Browne, Butlin, Horsley, McBride. From Austria : Michell, Braun, Catti, Chiari, Piniaczek. From France : Bouchut, Hignet. From Italy : Fasano. From Holland : Guye. From Russia : Heryng, Stepanow. From Roumania : Marcel. From Scandinavia : Mygind. From America : Casselberry, Daly, Rankin, Thorner, Delavan, French, Gleitsmann, O'Dwyer, Jarvis, Hooper, Thrup, Freudenthal, Albaracin. The first meeting was introduced with a paper by Dr. B. Fränkel on the *Progress of Laryngology since 1887*. Copenhagen, in 1884, was the first occasion when laryngology was found worthy of being granted a special sub-section, and as the equal amongst special sciences of the other branches of medicine. Not only in Germany, but also in the other States, the medical congresses have acknowledged laryngology as a special science meriting a sub-section. Laryngological associations are now founded in all countries. Instruction in laryngology begins to be official in most universities. Some time after the last congress a royal clinique for laryngology was founded in Berlin. Similar institutions have been founded since this time in Paris, Naples, Cracow, Glasgow, Gand. The author showed photographs of the clinics of Drs. Gouguenheim and Dr. Lefières. The number of specialists increases more and more, and with it the knowledge of rhinology and laryngology, which is now more common amongst general practitioners. Four thousand two hundred and sixty-four laryngological papers have been published during the last three years, a great many dealing with cancer. A great number of publications have referred to intubation, and, as a new object of study, infectious pharyngitis has come into prominence. The enthusiasm concerning the relation of diseases of the nose to nervous symptoms has diminished. Electric lighting and illumination of the various organs is now more perfected. The author concluded with the declaration that the twelfth sub-section of the tenth international congress was now opened.

(To be continued).

RHINOLOGIE.

Mel.: Ich hab' den ganzen Vormittag.

Es tröstet über manches Leid

Uns die Philosophie,

Doch heilen kann zu jeder Zeit

Nur die Rhinologie.

Stets wird die Nase angebrannt.

Denn das hilft immer wie bekannt—

Tirallalallalalala tiralalalalalala.

Wer etwas durch die Nase spricht
Und wem sie ist verstopft,
Wem so recht leicht der Athem nicht
Wem's in den Schläfen klopft,
Dem wird die Nase angebrannt etc.

Und dem auch, der Migräne hat,
Dem, dem der Kopf nicht frei,
Dem, der sich fühlt ein wenig matt,
Auch dem der fiebert heu,
Dem wird die Nase etc.

Und hat die Jungfrau einen Kropf
Und klopft ihr Herz so froh,
Guckt sich die Augen aus dem Kopf
Nach Herrn von Basedow,
Dann wird die Nase etc.

Wenn Trichloressigsäur versagt,
Nichts hilft das Aristol,
Wenn trotz Pyoktanin wer klagt,
Wird trotz Jodol nicht wohl,
Dem wird die Nase etc.

Wer gar zu hoch die Nase tragt,
Sie steckt in alles 'rein,
Wer andern sie zu drehen pflegt,
Wer naseweis will sein
Dem wird die Nase etc.

Ob schief, ob grad', ob klein. ob gross,
Ob kurz, ob lang sie sei,
Ob hässlich oder ganz famos,
Das ist ganz einerlei,
Stets wird die Nase etc.

Den Damen all' ein donnernd Hoch
Jetzt bringen alle Herrn.
Wer nicht mit einstimmt oder doch
Dies etwa that' nicht gern,
Dem wird die Nase etc.

Michael (Hamburg).

GAUDEAMUS IGITUR!

Gaudeamus igitur
Nos laryngis gnari!
Post laryngoscop inventum
Nos habemus saep' eventum
Arte singulari.

Quid valebat ante nos
Medicus vel fortis?
Larynx fuit pars obscura,
Quem non adjuvit natura,
Erat praeda mortis.

Manus nostra brevis est,
Ergo elongetur.
Instrumenta varia
Penetrant in omnia
Nemini parcetur.

Vivat nunc scientia,
Studia, labores !
Qui sagacis mentis sunt,
Novas res inveniunt,
Habeant honores !

Vivat omnis mulier
Juno atque Venus !
Post labores artis duros
Nos delectat amaturos
Femininum genus.

Vivant, qui aegroti sunt,
Leves, graves casus !
Vel expertes vocis raucae
Laborantes vel ex fauce,
Vivant omnes nasus !

Pereat morborum grex,
Pereant dolores !
Pereant et ulcera,
Cocci et bacteria,
Pereant tumores !

Vivat nostra sectio,
Semper sit in flore !
Vivat, quem ornat reflector,
Vivat, qui tenet inspector
Speculum in ore !

Kayser (Breslau).



ASSOCIATION MEETINGS.¹

Fifty-Eighth Annual Meeting of the British Medical Association, Birmingham, August, 1890.

SECTION OF LARYNGOLOGY AND RHINOLOGY.

President—MR. JOHN ST. SWITHIN WILDERS.

ADDRESS OF THE PRESIDENT.

On the Teaching of Laryngology.

AFTER some preliminary remarks and a welcome to the members attending the Section, the speaker went on to remind those present that eighteen years ago, when the Association held its last meeting in Birmingham, laryngology and rhinology were to the profession at large a sealed book. Now, in most of the great towns of England, Ireland, and Scotland, are to be found surgeons who are experts in this branch of medicine. The progress of the specialty has taken place in spite of the sneers and discouragements which at first greeted the pioneers of this branch of study.

"I can well remember," said the speaker, "when the laryngoscope was regarded as a sort of curious toy which was likely to afford a large fund of recreation and amusement to the profession, but very unlikely to be of any serious utility to the profession at large. Those who did not scoff regarded the matter generally with a languid kind of interest, and thus, like the priest and the Levite, passed by on the other side. Our students had for some long time no opportunity to study the use of the laryngoscope, for there was no place where a knowledge of it could be obtained.

"The large hospitals, both in London and the provinces, had no special department in which they could obtain information. Consequently, with a few exceptions, several generations of students obtained their diplomas and were licensed to practise without the slightest knowledge of diseases of the larynx, and the instruments of precision with which their diagnosis may be made and appropriate treatment afforded. On these subjects it never entered into the minds of the examiners of the various licensing bodies to set a question, or even to inquire if the student under examination was aware that the larynx was ever the subject of disease, or was anything more than the anatomical passage from the mouth to the lungs. I am well aware, and I think that you will agree with me, that the mind of the ordinary Briton is ever slow to adopt new methods; and especially is this true of the medical profession—a profession whose instincts have always been eminently conservative, and which has, until the last seven or eight years, been rather suspicious of most novelties in the way of new lines of treatment. If this be true, it is not difficult to understand that the

¹ Abstracted from the "*Brit. Med. Journ.*," August 16th and September 13th, 1890.

“laryngoscope was for a long time unable to gain the confidence of the general body of the profession, and of obtaining that recognition which its merits so eminently deserve. All the greater credit is due to those earnest workers who stood firmly by this instrument, through good repute and evil repute, and who, by their dogged firmness, their great ability and tactile skill have raised laryngology and rhinology to the position which they occupy to-day—a position second to none of the various special branches of our profession. Now, gentlemen, it may not be out of place to remind you that it is only just to the memory of Mr. Frederick Ryland, that a Birmingham man was one of the first writers on diseases of the larynx. In 1837 he published a book called *A Treatise on Diseases and Injuries of the Larynx*; founded on the essay to which was adjudged the Jacksonian prize for 1835. He of course had no instruments of precision at his command; he had no means of examining the interior of the larynx; he had none of the modern remedies employed in the treatment of their disease; but he must have had indomitable perseverance in recording and following up his cases, and of making *post-mortem* examinations upon them when they ended fatally. His description of the symptoms of these diseases is as clear, definite, and truthful as any in the more modern books. Had he lived in the present day he would doubtless have become one of the leading professors of laryngoscopy.”

Mr. Wilders then went on to relate the development of the Midland Ear and Throat Hospital, and of the facilities which exist in Birmingham for the study and teaching of rhinology and laryngology at the present time, and concluded his address as follows:—

“Now, although I am quite ready to admit that it is to special hospitals that the advances made are principally due, and that to their officers more than to those in charge of special departments in general hospitals the popularity of the laryngoscope was due, and that special hospitals were founded because general hospitals were too slow in meeting modern requirements, yet I sincerely trust that no more special hospitals will be founded, but general hospitals, which profess to educate students, shall have well-equipped laryngological and rhinological departments, officered by competent specialists, who shall be placed on terms of equality with the physicians and surgeons.

“Now I fear that to some members of the Section these may appear very heretical opinions, which ought to consign me to the laryngological stake. But with all due deference to my opponents, I am prepared to defend this statement with what I believe to be competent arguments. I think you will all grant that every student, before he obtains the diploma which permits him to practise, should at least have a fairly proficient knowledge of the use of the laryngoscope and rhinoscope—a knowledge which should be tested (I do not say severely) at his final examination. Now how is he to obtain this proficiency? The answer suggests itself—by attending a course of instruction upon these subjects, under the care of a competent teacher. Now, as President of the Clinical Board of this town which has charge of the clinical teaching at the Amalgamated Hospital, and as a lecturer at Queen’s College, I

"know that the burden laid upon the back of the student is as much as, or even more than he can bear. The number of lectures he is compelled to attend, the amount of clinical work he has to perform, the increased and increasing severity of the examinations, leave little time upon his hands in which to visit special hospitals. If, when attending at his general hospital, he finds the speciality upon the spot, he is able to give his attention to it without waste of time in going from one hospital to the other. I would not wish for one moment to detract from the value of special hospitals, but I would ask their officers to give their powerful aid in impressing upon the hospital authorities the necessity, in the interest of the public, of providing special departments where the students may gain the necessary information; and upon the examining bodies the absolute importance of compelling students to attend a short course on laryngology and rhinology which shall render them competent to treat those diseases in which a knowledge of the laryngoscope and rhinoscope are absolutely necessary. It must have been the lot of almost every member of this Section to have met with cases in which a little knowledge on the part of the practitioner in the outset of the disease would have spared the patient weeks, possibly months, of suffering."

On the Treatment of Laryngeal Disease in Tuberculosis.

Paper by Mr. CHARTERS J. SYMONDS, M.S., F.R.C.S., Assistant-Surgeon to Guy's Hospital.

Though it is but three years (1887) since the surgical treatment of laryngeal tuberculosis was discussed at one of these meetings, so much has been published and so much unpublished work has been done, that I thought our time would not unprofitably be spent in collecting the views and experience of those who have devoted attention to the subject. In 1887 there was much divergence of opinion both as to what was the best method of local and operative treatment, and also as to whether any such procedure was wise; and it will be my object to bring before you some of the results that have been achieved since then, and to relate my own somewhat limited experience.

At the outset I would like to say that I do not propose to enter into the palliative treatment, but to confine myself entirely to the operative, especially to the value and justifiability of the method introduced by Heryng, of Warsaw, and advocated by Krause, of Berlin—that is, to the use of lactic acid combined with curettement. I will also add some experience on the value of lactic acid alone.

Approaching this subject as I do from the standpoint of a general surgeon, and having to deal largely with the eradication of tubercle from joints, bones, skin, etc., one is disposed *a priori* to view with favour any method which has for its object the mechanical removal of tubercular deposits. We have in general surgery, I think, practically ceased to trust to the use of germicides alone; they are of value only after the diseased area has been removed by scraping or excision. In this connection I may refer to the great improvement that has been effected in

the treatment of tubercle in joints and bones, as an encouragement to the application of similar methods to the larynx. It is now no uncommon—I may say almost the usual—experience to obtain primary union after the excision of the tuberculous joint. I have, within the last two years, obtained primary union in three cases of hip-joint disease, all associated with extensive suppuration, and in several elbows, after scraping out much caseous material and sequestra, I have left the joint alone for two or three weeks, and at the end of that time found it healed.

With sinuses again, we find that persistent scraping is the only remedy. In the case of a Symes amputation for tubercular disease of the os calcis, I was obliged twice to reopen the whole stump and scrape the surfaces, and on two or three other occasions to curette the sinuses before sound union took place. This method, then, with the use, after the surface has been scraped, of iodoform and glycerine 50 per cent., combined with the constant use of a current of boiled water or weak antiseptic lotion during the operation, is the method now in use—a method which has within the last few years made a revolution in the treatment of tubercular disease of bones, joints, glands, bursæ, tendon sheaths, etc. This is not the place to pursue such a subject. I merely mention it to show what is being done with tubercle elsewhere.

At once a great difference is seen when we apply this method to the air passages—a locality from which we cannot exclude the air. Still, as Krause has said, the rapid healing of mucous membrane compensates somewhat for this disadvantage.

Turning to the larynx we must, I think, accept the position that little is to be expected from germicides used either internally or locally. If we are to obtain cicatrization, it must be by destroying the new growth and by promoting the closure of the ulcers. In fact, our aim must be to treat tubercle here on the same lines as we do elsewhere. Everyone of course recognises the great difficulties surrounding operative interference in the larynx, especially with regard to tubercle. There is the almost constant association of pulmonary disease, the difficulty of reaching the diseased surface, and on this account the impossibility of applying surgical methods with the same thoroughness we do elsewhere, the impossibility of curetting such parts as the subglottic region and the sacculi. As Dr. Hunter Mackenzie said in 1887, when opening the discussion on this subject, “the amenability of tubercular lesions to treatment is in direct proportion to their accessibility”—an axiom which we find perfectly true in general surgery. With moderate skill, however, and with the instruments now in use, these difficulties may be surmounted.

The above *a priori* reasoning is met by two objections: (*a*) that laryngeal tubercle never exists without pulmonary complication, and therefore that local treatment is of little avail; (*b*) that, again, tubercular laryngitis sometimes heals if left alone, whereas its growth may be accelerated by interference. I mention these two well-known points because in the minds of most who have not the opportunity of examining the larynx frequently there is still a conviction that they are strong enough to negative active treatment.

With regard to the first, a sufficient number of cases have been recorded by different observers to prove that laryngeal tubercle may exist for a long time without any clinical evidence of pulmonary phthisis. Heinze's dictum that no case of laryngeal tubercle has been found on the *post-mortem* table unassociated with pulmonary disease is, as all will admit, practically true, but it by no means follows that the pulmonary preceded the laryngeal affection in every instance. To those here it is an old truth that laryngeal tubercle is often primary, or at least that when existing we are often quite unable to discover signs of pulmonary disease. Many such cases have been recorded, and, moreover, some of them have been watched for long periods: some of Heryng's cases from one to nine years after cure of the laryngeal disease by local treatment. The whole subject has been very ably summarized by Dr. Hunter Mackenzie in the "*Journal of Laryngology and Rhinology*" for March, 1887. Now, if one part can be infected from another, nothing seems more likely than that the lung should be infected from the larynx: the reverse view has often been held, and it has even been urged that tubercle of the tongue is always secondary to that of the lung. But in this instance again we have examples of lingual tubercle in otherwise healthy persons.¹

At present I have a patient, whose case I will mention more in detail presently, who has been under my observation for thirteen months without exhibiting signs of pulmonary disease. The history of laryngeal trouble extends altogether over a period of one year and nine months.

No one, I think, in the face of the large number of cases on record, reference to which will be found scattered through the pages of the "*Laryngological and Rhinological Journal*," can doubt that the larynx for a long time may be the only part affected. In view of recent pathology, it must be our aim to remove, as soon as possible, any tuberculous deposit, for I am one of those who believe in the infective property of any caseous or tuberculous focus.

But again I would add, that interference where pulmonary disease exists is justified from two other points of view. First, that when dysphagia is present, even with severe lung disease, removal of the infiltration by the curette and by lactic acid may enable the patient to swallow, and so, while affording great relief, improve the general condition.

In illustration, I may quote a case published by Krause. A man of 27 came with infiltration and ulceration of the cords of the left ary-epiglottic fold, and with a deposit in the inter-arytenoid space. In two days swallowing improved, and in less than a month the ulcer had healed under lactic acid. The infiltration had been destroyed by the cautery, and removed by the curette.

This improvement in general health and in the pulmonary condition is frequently mentioned by Heryng and by Krause as occurring in their cases, and in general surgery, again, we frequently see that after the removal of one tuberculous centre other points begin to heal. While

¹ Pathological Transactions.

admitting that the larynx is under very different conditions to other parts of the body, in that we cannot excise it as we can amputate a leg, it is equally clear that as many ulcerative conditions interfere seriously with deglutition, it is of the greatest importance to employ any treatment that will lead to amelioration of the local disease.

The second objection to local treatment, apart from sedative sprays, &c., namely, that spontaneous recovery may occur, is a very important one. It is important because it suggests that amongst the recoveries attributed to lactic acid, &c., there may be cases which would have recovered spontaneously. To myself I must say this has always seemed a strong argument against local treatment. The fact of spontaneous recovery should make us very careful in weighing the value of local treatment.

The two following cases are good examples of spontaneous recovery:—

Tubercular Ulceration of the Right Cord, and Later of the Left; Spontaneous Cicatrization; Subsequent Recurrence.—W. Y., 42, came to the out-patient room at the throat department, Guy's Hospital, in June, 1888. He stated that from May to October of the previous year he lost his voice at night, and of late in the day as well. The right cord was red and swollen, and showed an irregular nodule with grey points. It did not move nearly as well as the left. There was no ulcer to be seen. The mucous membrane above the cord was also red and swollen. The left side was quite healthy. He had a fair voice except after great exertion. His health was good. He had a good appetite, and had only cough in the morning. He was a tall, gaunt man, without phthisical history, and there was no sign of pulmonary disease. The diagnosis at first was doubtful; but soon the opposite side became affected, ulceration appeared on both sides, with distinct tubercles. He now went into Devonshire, where he remained six months, spending his time in fishing and shooting, and living on good food with plenty of cream. On his return I found the larynx completely healed, the right cord was much destroyed, and the left to a less extent. His voice was reduced to a whisper, but in other respects he was in good health, and was free from cough.

After an absence of a few months he returned in June, 1889, with a rapid recurrence of disease. The whole interior of the larynx was affected; there was infiltration with tubercular deposit, and much œdema; there was also pulmonary disease; rapid extension took place. He was admitted into the hospital, where he died in August.

This case is recorded to show the spontaneous recovery of tubercle of the larynx under favourable conditions. In Devon he had good air, abundance of food, and a healthy life on a farm; when he returned to town the disease rapidly recurred. Cases of this kind must be recorded, when considering the local treatment, as showing that under favourable external conditions spontaneous recovery is possible. It is of special value when considering the question of the local treatment of laryngeal tubercle, combined with residence in localities favourable to a spontaneous recovery.

Tubercular Ulceration of the Left Ventricular Band; Recovery under Sedative Treatment and Mercury.—Miss C., aged 35, a school

teacher, was sent to me by Mr. Shadwell, of Walthamstow, for hoarseness and loss of voice. This began fifteen months before with cough and cold, after which attack she noticed that she was unable to teach the children singing. In June, 1887, after more exertion than usual, the hoarseness increased, and a cough set in. This was most troublesome in the morning and evening, and after exertion. At present she considers her health good, and feels up to her work. Her mother is living but is paralysed. Her father is dead.

On examination, February 25th, 1888, the left false cord was seen to be swollen and irregular, and below there projected across the lumen a red and soft cushion which concealed the true cord and obscured the view of the trachea. There was no infiltration of the arytenoid nor any disease on the right side. The long history, the localization, the absence of any lung disease, and the apparent good health of the patient were opposed to a diagnosis of tubercle; but, on the other hand, she looked feeble, had a rounded back, and said that early in the complaint she had expectorated a little blood. The sputum was not examined for bacilli. The only other diagnosis was that of syphilis, which received some confirmation later from the appearance of palmar psoriasis, a malady from which she had suffered before. The treatment consisted in the use of a chloride of zinc spray, and the internal use of perchloride of mercury with tonics and cod liver oil. She continued her work as a teacher in a large school. At the end of a month the swelling had subsided a good deal, and the left cord was visible in part. The voice was stronger, and there had been much less cough. The breath was shorter than it used to be.

May 18th. All spasmodic cough had disappeared. The voice was stronger and more useful. The left cord was now distinctly to be seen, and was pale, but looked narrowed from the projection of the false cord. The infiltration was very much less, and there was no new deposit. She says her voice was "quite a comfort." There was a good deal of expectoration, more than could be explained by the condition of the larynx, though the pulmonary evidence was very slight, consisting more in negative than positive signs. During the previous two months she had been taking mercury more or less, and using sedative sprays of cocaine and morphine.

July 14th, 1888. There was a great improvement in all respects—less cough and never spasmodic, and never now followed by sickness. The voice was more useful, and she could use it for a much longer time. A little blood was expectorated at times without effort. The larynx had greatly improved; the left cord was seen in its whole length. It was redder than normal, and looked finely granular. The false cord was still red, and there remained a rough grey surface in front of and below the left arytenoid, reaching a little way towards the middle line into the interarytenoid space. Both cords acted well.

October, 1888. The condition remained much the same, her main trouble being a cough.

May 25th, 1889 (fifteen months after her first visit) the patient called to see me again. She had not ceased to teach and had not taken rest;

she felt much better than usual. She was in school from 8.45 till 4.45. Never has any spasmodic fits of coughing now. On examination a great improvement was seen; the old ulcer had never healed, and there was to be seen only a grey and granular surface below and internal to the left arytenoid. The notes of this case extend over a period of more than a year, and during the whole time a steady improvement took place in the larynx. Of late she had lost weight; the cough and expectoration continued, the latter being accompanied at times with blood. In September, 1889, phthisis was well marked at the right apex. She died May 6th, 1890. No recurrence took place in the larynx, and she continued to teach till a month before her death. The laryngeal disease had been under observation two years and three months, and laryngeal symptoms had existed for over three years.

The spontaneous cicatrization of tubercle is frequent enough in other parts of the body. It is very common, as every one knows, to find scars and calcareous relics in the lungs. The spontaneous recovery of tuberculous or pulpy joints, though it takes a long time, is frequent enough. That some tuberculous cases run a rapid course and some a slow one, that others recover with cicatrization, is not surprising when we examine the morbid tissue minutely. In the rapid cases there is extensive caseation; in the slow cases there is abundant connective-tissue formation and vascular development, showing that the new tissue possesses the materials for organization. In general surgery I think we are now mostly of opinion that the best plan is to interfere early in tubercle, in order to shorten the process of recovery and to eliminate the risk of infection. In attacking laryngeal tubercle early we shall but be following on well-established surgical lines.

The methods of treatment in use at the present time may be classified as follows:—

1. The application of lactic acid, either (*a*) rubbed into the ulcers with a pledget of cotton wool or (*b*) injected into the infiltrations (15 to 20 drops of a 20 per cent. solution by Heryng's syringe).

2. The application of menthol—a 20 per cent. solution in olive oil applied daily.

3. The application of iodoform.

4. Removal of the infiltrations by a curette, and by scraping of the ulcers, followed by the application of lactic acid.

5. Tracheotomy.

Of the value of menthol and iodoform, I have no personal experience. The former was introduced by Rosenberg, and has been largely used. A series of cases was published by Dr. Ossendorsky, of St. Petersburg, in all of which marked improvement was recorded; the symptoms were relieved, but no cicatrization resulted. Professor Krause, after a trial of these remedies, makes the same remark—the ulcers clean, symptoms are relieved, but no cicatrization ensues; and the same may be said of boracic acid. In lactic acid we possess a remedy which, if well rubbed into the ulcers, leads to cicatrization. Krause's success with this remedy is well known, and, in a recent paper, he still advocates its use, after a trial of more than four years. He was led to employ the remedy from

the good results obtained by Von Mosetig in lupus. It is necessary to rub the acid energetically into the surface, so as to affect the deeper tissues, and to repeat this, if possible, daily. This is best done by the cotton-wool brush of Heryng, or by a pledget of cotton wool held in laryngeal forceps. I myself prefer the forceps suggested by Krause, as being more convenient.

Neither the brush nor the spray applies the acid sufficiently deeply. One writer recommends that the rubbing be carried even to the extent of producing bleeding. The amount of pain produced by the lactic acid varies greatly in individuals. I have in most instances used a 50 per cent. solution without much complaint on the part of the patient, while others suffer so much that it is necessary to begin with a 20 or even 10 per cent. solution. This is, however, no valid objection to its use, for the pain usually disappears in an hour, and, in the most sensitive, rarely lasts longer than twenty-four hours. In these cases cocaine may be employed beforehand. I mention these particulars with regard to lactic acid because I think in some quarters the remedy—having been applied by brush, and therefore ineffectually—has been unfairly condemned. In suitable cases there is abundant evidence to show that lactic acid promotes healing.

The case most suitable for the application of the acid by the wool brush is that in which the surface is ulcerated, for then the remedy can be rubbed into the diseased tissue. The good effects are sometimes surprising. In a young man, a patient of Krause's, who had a general laryngitis, with only a suspicious band of thickening and no pulmonary tubercle, the ordinary remedies for chronic laryngitis were employed without result. Then an erosion was noticed in the swelling in the inter-arytenoid space, and all doubt as to the nature of the case removed.

The aphonia by this time was complete. Lactic acid was now used, and in a few days the erosion began to heal, and the mucous membrane to look normal. In three weeks the local thickening had disappeared, and the laryngitis was well. I have recently treated successfully the case of a man, aged twenty, who came to the throat out-patient's department at Guy's Hospital, complaining of hoarseness and cough. He was very pale and anæmic. The larynx showed an irregular and nodular mass of small size occupying the space between the arytenoids. It resembled that commonly met with in tuberculosis. Beyond a marked pallor there was no other abnormal condition to be seen. A 50 per cent. solution of lactic acid was applied and well rubbed in. This was done at first twice a week, and later once.

July 11th. After six weeks' treatment the infiltration had disappeared, and the man said he was much better, and had very little inconvenience. This patient was not cured. Without wishing to give undue importance to this case it may be said that the appearances were those of tubercular disease, and that the patient recovered under the use of lactic acid while still following his usual employment.

As to the permanency of the results, Professor Krause tells us that some of his cases have remained well for over two years. The value of lactic acid in producing cicatrization of tubercle of the pharynx has also

been established. Lactic acid, or indeed any treatment, is of course unsuitable in very severe cases, where nothing but sedatives are justifiable. The acid does not appear to penetrate into the infiltrations if the mucous membrane be unbroken, and to meet this necessity the plan of injecting the acid into the swelling by means of a sharp-pointed syringe was suggested and practised by Heryng. I have myself no experience in the use of this method, but I hope that some of those present will be able to give us a few facts to compare with those presently to be given of the effect of the curette.

Scraping and Curetting of the Tubercular Infiltration, followed by the use of Lactic Acid.—This plan, introduced by Heryng, of Warsaw, and largely carried out by Professor H. Krause, of Berlin, seems at present to offer better results than any other. It is exactly what we do in tubercle of joints and bone and skin. The application of iodoform and other remedies often fails to cure a tubercular ulceration, even of the skin, while one good scraping will lead to a complete recovery. This plan has been largely tried, and at the meeting in 1887 was discussed. Since then many cases have been recorded, and it is particularly with a view to elicit the experience of those present on this particular method that I have undertaken to bring the subject before the Section. I cannot do better than quote the results obtained by Krause, and published in the "*Therapeutischen Monatsschrift*," for May, 1889, for a copy of which I am indebted to the author.

In this paper Professor Krause summarises the various methods for the local treatment of laryngeal tubercle. I have already quoted his conclusions on some of the methods, and will now place before you the results of the method more particularly advocated by him, namely, the plan of removing, by means of a curette, portions of the tubercular growth, and then rubbing into the surface a solution of lactic acid. As Krause points out, it is not possible to bring the acid into contact with the tubercular formation unless the surface has first been removed by the natural process of ulceration, or by some surgical procedure. The method of scarification of Schmidt, though of advantage, is not satisfactory, because the small incisions heal too quickly. The suggestion of Heryng to first scrape the ulcer, or the non-ulcerated surface, so as to admit the acid into the deeper tissues, was, as Professor Krause says, a very important step in the surgery of the larynx. The plan was actively taken up by Krause, and the results he has obtained justify our adopting it as the best known method for the treatment of this most distressing malady. I will, before giving my own somewhat limited experience of the method, quote Krause's results. Up to the end of 1888 he had treated by curettement fifty-eight cases in his clinic and thirteen in private. This experience covers a period of four years, beginning in 1885.

This total of seventy-one did not include all, some ten or twelve not being sufficiently complete for classification. Of the seventy-one cases, forty-three were discharged as cured, or greatly relieved, and free from laryngeal trouble. Of these, thirty-two were hospital patients, and eleven private, showing a much larger proportion of recoveries amongst private

cases—a difference, as Krause points out, due to the better surroundings, and, I would add, also to the earlier stage at which the disease is seen. As to the use of the term “cured,” the author truly observes, that though to the laryngoscope the mucous membrane may look smooth and free from any infiltration, disease may still exist in the sinus of Morgagni, and below the vocal cords. This persistence must, however, be attributed rather to the anatomical arrangement of the parts than to imperfect treatment.

Of the forty-three cases, twenty-eight were alive and well at the time of writing, seven had died, but none of laryngeal disease, and of eight there was no account. Of the remaining twenty-eight out of the seventy-one, eight died uncured, eight did not continue to attend, and twelve were still under treatment. As to the duration of the cures, six were under observation from two-and-a-half to three years, two for two and-a-half, four for two, eight for one-and-a-half to one and three-quarters, and five for one year; the remaining forty-six for less than a year, but not less than four months. The method, Krause adds, is particularly valuable in undermined ulcers. In several cases the deposit was in the inter-arytenoid space, a site which Krause says is often selected. I had the opportunity of seeing several of Professor Krause's cases in the early part of 1889. He showed me several cases with scars in the inter-arytenoid space, and on the cords. One patient had been curetted, till, what with the effect of the disease and the treatment, there was very little laryngeal membrane left. This man said he was much relieved of his difficulty in swallowing, and he came regularly for treatment.

Heryng also gives very striking results from the use of this method. Thus in one publication he gives twenty-seven cures out of thirty-six cases, and as to the duration of the cure, he stated that it lasted in three for nine, two, and one years, and in five from half a year to three years. The cases in which I have tried the method are all recent, but the results so far are satisfactory and encouraging. The best case is the following:—

Tubercular Laryngitis treated by Curettement and Lactic Acid.—Mrs. A., aged 42. Mother alive and well; father was killed twenty years ago. She is married, and has seven children living out of nine, and all are healthy. Her husband's mother died of phthisis. In October, 1888, while carrying her last child, she complained of cough. I first saw her in June, 1889, when the following condition existed: the left false cord was replaced by a hard, nodular, red growth, occupying its entire length. Near the posterior end this mass was divided by a deep cleft, through which at times the true cord was visible. The arytenoid was healthy, and so was the right cord. The left true cord was concealed by the projection of the tubercular growth. There was no dysphagia, and only slight cough. The voice was a little hoarse and weak.

On September 12th, 1889, I removed by the double curette (of Krause) a portion of the mass. This produced very little distress; the inconvenience was chiefly due to the cocaine. At the end of a week a marked reduction was visible, the main projection being reduced one-half. Lactic acid was rubbed into the surface. A microscopical examination of the piece removed showed well-marked tuber-

cular structure. On October 10th, the larynx was again curetted. On April 3rd, 1890, the mass had nearly disappeared, and now it was seen that the true cord as well as greater part of the left side was affected. A distinct white scar was visible where the mass had been curetted. On this day, the anterior part was cauterized deeply in two places.

May 1st. She says that there is great improvement in her voice, and that there is less pain on swallowing. The rest of the treatment consisted in rubbing in lactic acid, 50 per cent., together with general tonics. The woman lived a long way in the country, and could only attend once a week, so that the treatment was necessarily imperfect. The lungs were frequently examined, without discovering any further evidence of phthisis other than that the breathing at the right apex was not so good as at the left. In the examination of this point I had the advantage of Dr. Goodhart's opinion, who sent the case to me originally. The form of tubercular deposit in this case is that which seems to me to be particularly well suited to the treatment by the curette. It formed a prominent mass, was hard, and of slow progress, and at the same time there was no active lung disease. The patient was averse to the use of the curette, and on this account also progress was delayed.

This patient was last seen on July 18th, 1890, and showed great improvement. The left vocal cord was well seen; it was a little notched, but otherwise healthy. The large mass had nearly disappeared, and on its site was a pale scar, and a nodule looking pale and hard, as if composed mainly of cicatricial tissue. The voice was good, and there was no cough or laryngeal trouble.

I have under treatment at present a medical man who has ulceration of the epiglottis, with infiltration of the left fold. He had, when he first came, œdema of the arytenoid mucous membrane also. Under lactic acid some improvement took place, but after scraping the surface with a curette, and the further use of lactic acid, he has improved a good deal. There is much less swelling of the epiglottis, the œdema of the mucous membrane over the arytenoid has disappeared, and he has less pain on swallowing, and less irritation. There is also under treatment a woman with extensive infiltration and swelling of the arytenoids and of the folds so great as to conceal the opening of the larynx altogether. She was unable to swallow fluids, had a moderate amount of dyspnœa, and a distressing cough. With Krause's double curette I removed a piece of the infiltration under cocaine: at the next sitting I removed a piece about the size of a big pea. Again, on July 16th, I removed three pieces, and on the 18th three more. On this last occasion, one piece measured 1 centimetre in length, and half that in other directions. The patient suffered very little pain afterwards, and said that she felt her throat much larger, and could swallow a little better. The day after the last removal I was able to apply a 30 per cent. solution of lactic acid. It was possible now to get a good view of the larynx. On the 20th, I again removed three pieces. The vocal cords were then both seen to be swollen, but not ulcerated. The woman has less cough, breathes much easier, but the dysphagia is unfortunately not much less. Lactic acid is applied daily. Though this case is by no means completed, the improvement is

marked. I must add that there is also pulmonary phthisis, but not of a very active kind. I record the case merely to show what may be done in these worst forms of infiltration with dysphagia.

Tracheotomy still has its advocates ; it gives rest to the larynx, and allows the employment at the same time of the use of local applications. This operation seems to be suitable only to those without pulmonary disease. I recently adopted this plan for a man who had tubercle of his larynx, of his pharynx, and fauces. It was thought that the lungs were free. All the symptoms became worse at once, and I think the man's distress was increased three-fold. Disease of the lungs was discovered as soon as the quieter breathing permitted a more careful examination, and it progressed with alarming rapidity, and it seemed that the presence of the tracheal opening aggravated the malady. I find that others have observed the rapid increase of symptoms after the operation in certain cases. In suitable cases, however, much good has resulted : Krause gives five cases, of which three were alive and well after four and a half years : the fourth died of lung disease without laryngeal recurrence, and the fifth of asthenia. Where the patient can bear endo-laryngeal treatment, I prefer it to tracheotomy. Of the value of electrolysis—the latest suggestion—not much is yet known. Heryng has tried it on five cases, and in two with surprising success. One of these patients had not improved under lactic acid.

In concluding this brief account of the methods of treatment, it may be said, I think, our objects in operating are :—

1. To relieve the cough and the dysphagia, and so to bring about improvement in the general health, by enabling the patients to swallow.
2. To diminish the liability to pulmonary affection.
3. To produce a more rapid recovery in those cases disposed to a spontaneous cure, much as we do in cases of tubercular disease of joints.

All these objects seem to me to have been attained by one or more of the methods I have enumerated, and that these results fully justify our recommending the local or surgical treatment of laryngeal tubercle, on lines similar to those employed for the same disease in other parts of the body. The cases most suitable are :—

1. Those in which there is no evidence of pulmonary disease.
2. Those in which there is severe dysphagia and cough, with existing, but not rapidly advancing, pulmonary disease.
3. Those in which the pulmonary disease is early, or chronic, as in these the latter may improve.

All the conditions are amenable to treatment, but those most suitable are the tubercular tumour—that is, the localized formation of a mass of granulation tissue, such as existed in the case of Mrs. A. above related ; next comes the ulcer, into which lactic acid can be rubbed ; and lastly, the infiltration and oedema, which must be removed by the curette, or injected with lactic acid. No one will be inclined to operate on patients with advanced pulmonary disease, when there is hectic and rapid emaciation. There are, of course, many unsuitable cases which we can only relieve by sedatives. I have not referred to the general treatment of

the patient, leaving that understood ; but there can be no doubt that local treatment is greatly aided by good hygienic surroundings. For patients who cannot afford the luxury of a residence in the South, where no doubt spontaneous recovery is greatly favoured, I believe we can do a good deal even in their unfavourable surroundings by local methods. Speaking of these severe cases, Professor Krause says : "We must not despair even in such cases. I have observed cases in which, with all the unfavourable local and general symptoms, a careful and continuous local treatment was successful in curing the laryngeal disease. And I have seen others in which the disease was arrested and, in comparison with the existing torments of hunger and inanition, a condition result which was at least bearable."

Finally, I would propose : 1. That tubercular disease of the larynx should be treated on the same lines as elsewhere—that is, by destroying it by an irritant or by removing it by erosion or curettement. 2. That at present lactic acid is our best application. 3. That endo-laryngeal methods are sufficient to remove and treat the disease in the majority of cases.

Paper by G. HUNTER MACKENZIE, M.D., Laryngist to the Eye, Ear, and Throat Infirmary of Edinburgh.

The title of this discussion, of which I have the honour to be one of the openers, has been wisely chosen, inasmuch as it embraces the treatment not only of tubercular disease of the larynx, but of all the affections of that region which may occur during tuberculosis (of the lungs); for laryngeal disease in tuberculosis may be tubercular, non-tubercular, or mixed.

1. In considering the problem of the treatment of tubercular disease of the larynx, we have, in the first place, to endeavour to ascertain whether by any known means we can influence the organism upon which the disease depends ; and next, and in the event of our failure to do so, can we do anything to mitigate the sufferings of its victims? No one, I think, now doubts that a bacillus—the tubercle bacillus of Koch—is the cause of tubercular disease. Those who, like myself, have made sputa examinations a part of their routine work cannot but have been struck with the enormous numbers and large size of these bacilli in the expectoration of laryngeal tuberculosis as compared with the purely pulmonary variety of the disease. Laryngeal tuberculosis, in fact, represents an intense—probably the most intense—form of the affection, and this apart from the drawbacks and difficulties attendant on its locality. Its subjects do not, as a rule, afford us facilities for prolonged observation of their cases, and in endeavouring to observe the influence of certain agencies on the bacillus of tubercle it is unfortunately necessary to have recourse to examples of pulmonary tubercular disease. I happen for years to have availed myself of many opportunities for making such observations, and have published some results in the *Edinburgh Medical Journal*.² I have there shown that neither prolonged residence in the most favourable

² The Influence of Certain Medicinal Agents upon the Bacillus of Tubercle in Man, "Edin. Med. Jour.," February, 1889.

climes, such as the Riviera, Algeria, and Australia, nor the general administration or topical application of drugs—in which I include the various forms of inhalations—has any apparent influence upon the persistence and development of these organisms. A slight diminution in numbers seemed to supervene on a lengthened residence—say for three years—in high altitudes; but their total disappearance from the sputum never ensued, even in cases in which, to judge from the general condition and sensations of the patient, recovery had taken place. If our therapeutics cannot succeed with the mild (pulmonary), it is not surprising that they do not succeed with the severe (laryngeal).

I think we may conclude that, so far as our present knowledge extends, there exists no certain method or system of treatment for eradicating these organisms in man, more especially when they manifest themselves in the form of laryngeal tuberculosis. Is active treatment, then, of any service in laryngeal tuberculosis? and under what circumstances, and in what form, is it justifiable?

To answer these questions it is necessary to consider not only the condition of the larynx, but—and this is often overlooked—the state of the lungs. Taking the latter first, I have no hesitation in recording my conviction that an individual with laryngeal tuberculosis and extensive pulmonary participation ought not to be subjected to violent or heroic local treatment. To scrape and inject—aye, even cut and cauterize—such a larynx is inflicting downright torture, by inducing pain (cocaine notwithstanding) and causing exhaustion which but aggravate the original conditions. Such patients ought to receive nothing but sedative treatment, in the form of sprays, powders, or mild and gently-applied pigments, or in the form of external soothing applications to the throat and ear. The local treatment which, in my opinion, ought to be followed, is certainly a mere treatment of symptoms, but in the present state of our knowledge it is the only one for which we have any justification.

In those cases, and they are occasionally met with, in which the lungs are not appreciably or only slightly affected, where the fever and consequent cachexia are of small amount, and where the laryngeal affection is of slower development, and the laryngoscopic characters and appearances more closely approximate to simple chronic laryngitis, a more active interference is indicated. The patient is more able to stand local treatment. Papillomatous or warty growths may be removed by the forceps or snare, ulcers may be cleaned by detergent sprays, and stimulated to a more healthy action by suitable applications. I have had no reason to believe that lactic acid, menthol, iodoform, or any such drugs have a specific action upon tuberculous lesions of the larynx, more especially when applied in the intermittent way which alone is practicable in the case of that region. From prolonged experimentation and observation I know, as already stated, that their action upon the germs is absolutely *nill*, and I believe they have no greater claims, even as palliatives, to places in the armamentarium of the laryngeal surgeon than are possessed by chloride of zinc, carbolic acid, hydronaphthol, and many others.

An important point for discussion is the propriety of performing

tracheotomy in laryngeal tuberculosis. I believe that, in the acute variety of the disease to which I have already referred, with extensive pulmonary participation in the tuberculous process, and rapid infiltration of the epiglottis and endo-laryngeal tissues, its performance is unjustifiable, unless for the removal of obstruction to the respiration, and this, fortunately, is seldom present to the required extent. In the slower and more chronic variety, however, with slight pulmonary affection, the operation may be performed with the view not only of relieving the breathing, but of permitting the free ventilation of the lungs, and the relief of the larynx from the irritation of coughing. I have lately recorded the sequel to such a case,³ in which tracheotomy was performed in 1887. The result here has been most satisfactory, although the patient, when last seen, was not able to dispense with the tube.

I need hardly add that, despite our failures to promote a cure in the majority of the cases of laryngeal tuberculosis, the sufferings of the patient may be markedly mitigated by paying attention to the hygiene of his surroundings, by relieving the odynphagia, by subduing cough, and by placing him under such conditions as conduce to rest and freedom from irritation of all kinds.

2. The only non-tubercular affection of the larynx in tuberculosis to which I mean to refer is the simple catarrh sometimes met with in pulmonary tubercular subjects. I take it that this is simple, from its frequent disappearance and reappearance in those who suffer from it. Regarding its treatment, I would merely say that tuberculous patients with this complication ought not to be sent to high altitudes. I have several times witnessed aggravation of this catarrh result from neglect of this precaution. Its local treatment will, of course, be conducted on the usual lines, which I need not now particularize.

3. An example of the occurrence of mixed laryngeal disease is seen in the co-existence of syphilis and tuberculosis. I believe this occurs more frequently than is supposed. It would be diagnosed by the concurrence of tubercle bacillary sputum with the signs of syphilis of the larynx and of the mouth and vicinity. The treatment of such a case will, of course, largely depend upon the views entertained by the surgeon regarding the therapeusis of syphilis.

In this paper, which I have abbreviated as much as possible, I have essayed to give a mere outline sketch of the principles and objects which should guide us in our treatment of laryngeal disease in tuberculosis. I have not attempted to enumerate the many panaceas and systems of treatment which, during recent years, have been offered for our acceptance, but am content to leave this to those who follow in the discussion.

DISCUSSION.

Mr. BUTLIN quite agreed with Mr. Symonds and Dr. Hunter Mackenzie, that active treatment of the larynx should not be undertaken in cases in which the lungs were seriously affected. He had had no experience of electrolysis and curetting, but had used menthol, iodoform, and lactic acid. Of menthol he had

³ Sequel to a Case of Tracheotomy for Chronic Laryngitis, probably Tubercular: Removal of Warty Growth from Posterior Third of Right Vocal Cord, "*Edin. Med. Journal*," July, 1897.

formed the opinion that it was an excellent palliative. He had seen good results from the application of lactic acid, active ulcers having healed. But the best result had been from the frequent insufflation of iodoform, combined with general remedies. Under this treatment he had known what appeared to be complete recovery in a severe case of pharyngeal and laryngeal tubercle.

Dr. CLIFFORD BEALE referred to the frequent occurrence of small localized catarrhal affections in the larynx in persons the subjects of pulmonary tubercle. Having examined the larynx in a long series of ordinary cases of phthisis at Victoria Park Hospital, he had frequently found unexpected catarrhal lesions with swelling and adherence of small masses of inspissated mucus which remained firmly adherent for weeks, until removed by mechanical means. In one such case the laryngoscopic appearances were those of tubercular infiltration of one ventricular band, but after simple removal of the dried mucus the larynx returned to its normal state. He suggested that these localized lesions are liable to become the seat of tubercular infiltration if neglected or allowed to pass undiagnosed. The treatment of all such early lesions was of great importance, and in most cases perfect cure could be effected by simple cleansing. In the treatment of the later tubercular lesions he preferred lactic acid, and had found it most effective up to a certain point. Ulceration might be healed and swelling reduced, but constant application appeared to be necessary to prevent recurrence. Tracheotomy had given relief to certain cases of occlusion of the glottis by infiltration, but where much ulceration was present, or any advanced disease in the lung, it appeared to be generally discountenanced.

Dr. GREVILLE MACDONALD remarked on his want of success in the treatment of laryngeal tuberculosis in hospital patients, but was bound to admit his striking success in two or three private cases. He doubted much the rectitude of considering al superficial excoriations occurring in tuberculous subjects as necessarily tuberculous themselves, having often observed such ulcerations undergo spontaneous cicatrization. He related a striking case illustrating this point, and then proceeded to recount the particulars of two characteristic instances of laryngeal tuberculous ulceration associated with incipient pulmonary disease. In the first case there were grave constitutional symptoms, yet in six weeks' time the local evidences had disappeared, while a twelvemonth after the patient considered himself perfectly convalescent while the larynx appeared normal.

In the second case, seen in consultation with Dr. Semon, the treatment of which was almost completed, a large ulceration covering the right ary-epiglottic fold and ventricular band, with considerable infiltration, and fixture of the vocal cord, had completely cicatrized under combined scrapings and the rubbing of lactic acid.

Dr. JACOB thought it was a very important point to decide whether the general condition of the patient as regards pulmonary disease would allow active treatment to be performed. He would have some hesitation in advocating extensive erosion in the later stages of phthisis for the condition of dysphagia. On the question of the disappearance of tubercle bacilli from the sputum, referred to by Dr. Mackenzie, he thought the *post-mortem* records showed the very frequent cure of tuberculosis in the lung.

Dr. BENNETT asked Mr. Symonds for his experience with regard to the application of the galvano-cautery to infiltration in laryngeal tuberculosis; also as to whether he had personal experience of Dr. Krause's method of removing portions of infiltrated tissue over the arytenoids.

Mr. JOHN ST. SWITHIN WILDERS deprecated tracheotomy in tubercular

laryngitis, except for the most urgent reasons, such as extreme dyspnoea. He related a case in which syphilis and tuberculosis were commingled, making the diagnosis very difficult.

Mr. LENNOX BROWNE was glad to learn that the principal and preferable method of treatment adopted by previous speakers was that which he had himself advocated for many years, and particularly in his own opening paper of a similar discussion at the Dublin meeting in 1887—namely, that of curetting and lactic acid. It should be always insisted that it was important to apply the acid with some friction. This treatment was beneficial in cases of ulcerations and granulations peculiar to the chronic stage of the disease. In the acute stages, characterized by thickening, applications, sprays, and inhalations of menthol were preferable. He was pleased to know that more active surgical treatment in the way of removal of tuberculous larynges, or portions of the larynx, was not favoured by the previous speakers, and for himself he would hesitate to perform tracheotomy in the case of a patient suffering from laryngeal phthisis, for the two reasons that the irritation of the larynx, so usual a condition in these circumstances, was increased, and because, as Dr. Percy Kidd had emphasized, the act of coughing was always rendered more difficult by the presence of a tracheotomy tube.

Dr. BRONNER used lactic acid in most cases of tubercular ulcers in the larynx. He always applied cocaine before and also after the use of the lactic acid. He used a cotton-wool holder with a screw end. Small or large pieces of cotton wool could be attached, and thus the application of the lactic acid well localized. He thought that the sponges, brushes, and cotton-wool holders generally used were much too large, and with them the application of the lactic acid could not be properly localized. If cocaine were used before and after the use of the lactic acid, and smaller brushes were used, Dr. Bronner thought that we could in many cases avoid causing much pain or subsequent swelling.

Mr. SYMONDS replied that, though most of the cases mentioned that day were opposed to treatment by tracheotomy, it seemed that there was a kind of case to which such a treatment was applicable and valuable, though he was unable to formulate the particular one. In reply to Dr. Jacob, he wished to say that in recommending active treatment where dysphagia existed he particularly limited the treatment to those cases where the lung was quiescent, and that such was the condition in the patient to whom he had referred. Many successful cases had been mentioned that day, and were most encouraging, and all pointed to the conclusion he had advocated, namely, that at present our best method of treatment was the use of lactic acid in ulcers, and of the curette in infiltration, followed by lactic acid.

Dr. HUNTER MACKENZIE, in replying, said the prominence which had been given to the surgical treatment of these lesions by curettement or tracheotomy indicated the importance which these questions had now attained. He believed that a great deal of the benefit attributed to the use of lactic acid was really owing to the thorough scraping and cleaning of the tuberculous lesions. The case of tracheotomy referred to by him still wore the tube without the slightest inconvenience of any kind resulting therefrom. He agreed with Dr. Jacob that tuberculous ulcers healed occasionally, and he had no doubt that these lesions of the larynx might sometimes take on an healthy action without any, or with the mildest, local treatment. He thought that the question of climate in the treatment of these cases was of importance, and he should be glad to elicit the opinion of the members as to where such patients should be sent. His own opinion was decidedly against sending such patients to mountainous regions.

Dr. E. F. TREVELYAN (Physician to Leeds Public Dispensary) related *Two Cases of Abductor Paralysis of the Larynx of Uncertain Origin.*

Case 1 : A man, forty-five years of age, was brought to the Leeds Public Dispensary suffering from extreme dyspnoea, chiefly inspiratory in character. His condition was so urgent that laryngotomy had to be done at once, even before transferring him in the ambulance to the infirmary. When admitted (under Dr. Eddison) he was breathing quietly and easily through the tube. The dyspnoea, it was stated, had come on rather rapidly. The fauces and back of the pharynx were much reddened, but there was no trace of any membrane. Examination by the laryngoscope was difficult at this time, but showed that there was no œdema of the epiglottis or adjacent parts. The thoracic organs were healthy, with the exception of some bronchial catarrh. There was no evidence of pressure on the pneumo-gastric or recurrent laryngeal nerves, and no albumen in the urine. The patient improved rapidly. Much secretion came away through the tube. The latter was left out in about ten days. There were no further attacks of dyspnoea. A laryngeal examination then showed the rima glottidis to be much narrowed, the vocal cords standing much nearer the median line than they should do, and hardly moving outward at all during inspiration. In phonation they approximated naturally. The mucous membrane was healthy. There was practically no stridor now, except on exertion ; the voice was perfect. The patient, when seen six months later, was almost free from subjective symptoms, but the glottis was still narrower than it should be, and abduction, though improved, was still limited.

Case 2 : A labourer, thirty-six years old, admitted into the Leeds Infirmary (under Dr. Eddison) complaining of shortness of breath and difficulty of swallowing of about four and five months' duration, gradually getting worse. Breathing had been noisy for three or four weeks. There was no history of syphilis. The dyspnoea was well marked, inspiration being loud and sonorous, and especially bad at night. Expiration was easy. The voice was slightly hoarse. The difficulty in swallowing was not great. There were a few enlarged glands at angles of jaw on both sides. The laryngoscope showed the cords lying near each other, with only slight movement outwards with deep inspiration ; they approximated perfectly in phonation. There was slight catarrh of the mucous membrane, but the interior of the larynx was otherwise healthy. Examination of the chest was practically negative. There was no enlargement of the thyroid or swelling of any kind in the neck, and there were no symptoms of nervous disease. He was in the infirmary about seven weeks ; he left much improved in his breathing, but the condition of his larynx was unchanged. When heard of eight months afterwards he remained much improved, but his friends stated that if he caught cold the stridor was as bad as ever. The more or less acute onset of the disease in the first case suggested adductor spasm rather than paralysis of the abductors, but the duration of the disease was, Dr. Trevelyan thought, strongly against it. The history of the attack lent support to the idea that the paralysis of the abductors was of myopathic

origin, that it was in all probability due to inflammatory infiltration of the posterior crico-arytenoid muscles, being a part of a severe laryngeal catarrh. The history would seem to point out that it was not a case of long-standing abductor paralysis, aggravated, as such cases are apt to be, by a supervening laryngeal catarrh. The absence of any evidence of intra-thoracic disease or of central nervous disease, or indeed of any disease (save laryngeal catarrh) which could stand in casual relation with abductor palsy makes the diagnosis more certain. The idea of functional paralysis could not be entertained in this case. Another point of interest was the question of laryngotomy. There could not be a doubt that the operation was necessary in this case, but in ten days' time the tube could be left out. This was the shortest time that he had been able to find recorded. In the second case the chief point of interest was the diagnosis. The disease was paralysis, not mechanical fixation of the crico-arytenoid joints. The most probable of all possible causes appeared to be intra-thoracic growth.

A discussion *On the Etiology, Significance, and Treatment of Spurs and Deflections of the Nasal Septum* was introduced by Dr. E. WOAKES, Senior Aural Surgeon to the London, and Mr. W. J. WALSHAM, Assistant Surgeon to St. Bartholomew's Hospital.

Dr. Woakes began by saying that he would limit his remarks to a simple account of his own experience. With regard to the etiology, it was possible that deviation might be congenital, but he had no experience bearing on the subject. The formation of the median ridge between the superior maxilla might, however, favour the displacement from it of the lower margin of the cartilage which it supported. He did not think inherited syphilis could count as a factor. It was mainly the cartilaginous septum which was deviated, but this did not apply to spurs. Injury, throughout the most frequent cause, gave rise to most pronounced degrees of deformity. After a blow, etc., it was not rare to see one side of the cartilaginous septum indented with a serpentine depression, as if it had been crumpled on itself, while there was a corresponding bulge into the opposite nostril. After some time the bulge no longer corresponded to the depression on the other side, but seemed to occupy the whole of the visible surface of the septum. Indeed, the thickening on the projecting side might not present a bulge at all, but a smooth mass, slanting outwards to the outer wall of the nasal fossa, and causing complete stenosis of that side. On the other hand, the opposite surface showing the curved indentation, was generally free from inflammatory thickening. The tendency to inflammatory infiltration on the side towards which the deviation occurred was seen in idiopathic as well as traumatic cases.

One feature was common to all these cases. However extensive the deviation might be, the mass did not actually touch the floor of the passage. He had never seen a case which would not admit a fine probe—a circumstance which was of great help to the surgeon. Dislocation of the lower margin of the cartilage from the columna nasi was usually most evident in the nostril which was not occupied by the mass

above described. In deviations and spurs of idiopathic origin the cause would most frequently be found in the presence of enlargements of the spongy bones. Whether the enlargement was due to hypertrophy, to neoplasms such as myxoma, to exostoses, or to cysts, and whether it was the middle or the inferior spongy bone that was enlarged, the effect was the same; the septum yielded and projected into the opposite nostril to a degree proportionate to the swelling. If the swelling was bilateral and equal there was no deviation; if bilateral but unequal, the deviation was towards the smaller growth. Spurs were most commonly found in the nostril towards which the concavity of the deviation was directed. There was a very intimate association between spurs and deviations, of which fact Dr. Woakes offered the following explanation: When the cartilaginous septum was pushed to one side the pressure tended to dislocate it from its line of insertion into the median ridge of the superior maxilla. A slow inflammatory process was set up at this line which resulted in the formation of a buttress of hypertrophied cartilage and bone. In such cases the spur must be regarded as a conservative formation, and should not be interfered with if it gave rise to no symptoms. Whether spurs on the posterior segment of the septum had the same origin was not clear. In some cases large spurs were found in that situation without any evidence of deviation; they were probably the result of bygone periostitis. The significance of deviations and spurs was twofold. In the first place they should suggest a search for pre-existing morbid conditions, for the treatment of which the mere removal or rectification of the deformity did not suffice. This remark applied especially to enlargements of the middle turbinated bone and diseases of the ethmoid region generally. In the second place, they might give rise to symptoms. These might be grouped under two heads—obstruction of the nasal channel, and tension of, or pressure upon, nerves. Even partial nasal stenosis necessitated mouth-breathing, and the respiration of air deprived of the moisture added to it in the nasal cavities produced wide-reaching effects on the lower respiratory tract, such as chronic laryngitis, follicular pharyngitis, etc. The Eustachian tube and the auditory apparatus also suffered. The most interesting symptoms were, however, of the nature of nerve reflexes, such as a sense of suffocation referred to the larynx, which occurred mostly in persons under the age of thirty, and was often dismissed as hysterical, weak action of the vocal cords with corresponding weakness of voice. The presence of any of these symptoms justified surgical interference, which should be radical.

It was unnecessary to detach and evert the upper lip; very little additional room was afforded by Rouge's operation. The first step was to remove the spur. For this purpose he (Dr. Woakes) still used the saw which he had first introduced. Having inserted the saw as far as possible, he directed it first inwards towards the septum, and then used it in an upward direction parallel to the septum until enough had been removed. A small plug of wood, dipped in carbolyzed vaseline, was then put in to cover the wound: he sometimes dusted this plug with iodoform before introduction. If there was deviation this must be rectified by means of an Adams's dilator, but nothing would keep the septum straight

if the spongy bones were hypertrophied ; their reduction or ablation was therefore a necessary preliminary. Having cleared the nostrils and placed the septum in the middle line, the next step was to introduce the plugs. He had long discarded solid plugs, preferring fir wood-wool as a material. A piece of this wool was frayed out into a soft long mass, about four inches long. This was then twisted round a piece of ligature silk ; it was then doubled in the middle, and the two portions twisted together loosely, and the two silks knotted together where the wool came to an end. There were thus two inches of wool, into the midst of which a thread of silk was inseparably twined, so that the whole could be withdrawn at will by means of these ends. Several of these plugs should be prepared beforehand ; they might be smeared with iodized vaseline. One was introduced into each nostril by means of a strong probe or crocodile forceps. It should be carried the whole length of the nostril, and a second thinner one might be introduced above it if necessary. The ends of the silk hanging out of the nose should then be tied together. These plugs might be left in for a week. India-rubber tubing was a good substitute for the wool ; it was cleanly, and admitted of irrigation. He had once or twice encountered troublesome hæmorrhage in this operation. In such cases, and in all cases of nasal bleeding, he had found Ruspini's styptic superior to any other, especially if used in conjunction with fir wool. With regard to removing the inferior turbinated bone, or a portion of it, to make more room, he held that all the turbinated bodies should be treated with conservative respect when they were in a condition to perform their proper function ; if, however, they were diseased, or adherent to the floor or walls of the nasal fossa, they might be dealt with according to the requirements of the case.

Mr. WALSHAM said that under the general term "deviations" several distinct conditions were included. They might be classified as follows : 1. Simple deviations of the cartilaginous septum. 2. Dislocation of the anterior end of the septum from the nasal spine and from between the reflected portions of the lateral cartilages. 3. Deviations attended with cartilaginous and bony outgrowths of the septum. The first variety was very common, and, when slight, gave rise to no inconvenience. In by far the greater number of the cases he had seen the deviation was the result of former injury, and in most of them it was associated with some slight displacement of the lateral cartilages or nasal bones. In a few there was no history of injury, and in these the deviation was generally first noticed about the age of puberty. He believed that in non-traumatic cases the deviation was the result of some defective development of the bones of the face. At or about puberty the nose underwent a remarkable development, and the accessory cavities (sphenoidal cells, frontal sinuses and antrum), previously hardly existent, rapidly assumed their adult proportions. As the sphenoidal cells were developed, the vomer was pushed downwards and forwards by the rostrum of the sphenoid, carrying with it the superior maxillary bone. This ploughing forward of the vomer carried with it the perpendicular plate of the ethmoid, together with the nasal bones and the external table of the frontal to which these were

attached. In this way the frontal cells were developed. If anything interfered with the due development of the jaws, or prevented the carrying forward of the external table of the frontal bone, the nasal bones would also be arrested in their forward extension; and, supposing the development of the septum to go on, some deflection must occur. As the sense of smell was becoming of less importance in the struggle for existence, the accessory nasal cavities were slowly becoming smaller, but it did not follow that every septum should be crooked.

The symptoms caused by this variety of deviation—such as obstructed nasal bleeding, nasal timbre of voice, post-nasal catarrh, and the concomitant aural troubles were well known. By way of treatment, the simple shaving away of sufficient of the mucous membrane and cartilage on the affected side (or on both sides when the septum was S-formed) to allow free passage for the air was most successful. Forceful straightening was of no use in this class of cases, as the cartilages were resilient, and the deviation was sure to recur when the retentive apparatus was removed. He much preferred the shaving procedure to burning away the projecting part with the galvano-cautery. After the use of the latter, he had seen adhesion of the septum to the lower turbinated body, and sloughing and perforation of the septum. Where there was deviation of the maxillary crest, besides shaving off the deflected portion of cartilage, he fractured the crest, and forced the upper fragment along with the attached cartilage into the median line, and retained it there by suitable apparatus till consolidation occurred.

In the second variety, that portion of the septal cartilage which was normally situated between the two reflected portions of the lateral cartilages, and was attached below to the anterior nasal spine of the superior maxillary bone, was displaced from its groove and protruded into one or other nostril. The mucous membrane covering it was sometimes thickened and congested, and it then appeared as an unsightly red excrescence more or less occluding the passage. At other times the mucous membrane was thinner than natural, allowing the end of the cartilage to appear beneath it as a yellowish-white ridge. For this condition an injury in early childhood was often responsible. In non-traumatic cases the cause might be explained on a similar hypothesis to that advanced for the first variety. With regard to treatment, the projecting part of the cartilage with the superimposed mucous membrane might be shaved off, or a flap of mucous membrane might be raised and the projecting cartilage cut away. In his experience the former method gave the best results.

In the third variety the irregularity was often the result of fracture. In these cases the outgrowths from the deviated septum were callus. In other cases, where no history of injury could be obtained, he believed the outgrowths were sometimes the result of rickets. In such cases the projection occurred along the line of junction of the cartilage with the bones, forming a prominent ridge which projected more or less into one or other nostril, at times into both, and running backwards and upwards. This ridge might be formed by yielding of the soft, ill-formed osteoid tissue of rickets to the pressure of the developing septum (like the

enlargement at the end of long bones and the thickening along the cranial sutures). In traumatic cases he had found straightening, with removal with knife and nasal saw of any projecting portion of callus, very successful. The septum must be literally smashed by the forceps, with as little laceration of the mucous membrane as possible. It was of no use to twist it straight and leave it, as the deflection was almost certain to recur. To ensure the thorough smashing of the maxillary crest, the handles of the forceps should be well raised, or angular forceps should be used. The upper fragments should be bent well over to, or a little beyond, the median line. After the septum had been rectified, it must be kept in position by some form of retentive apparatus. India-rubber inflating plugs would be found serviceable, especially when the cartilages were slightly depressed. When no apparatus was at hand, a piece of stout rubber drain tube might be employed. In non-traumatic cases, the cutting away of the outgrowths from the septum with a strong, narrow probe-pointed scalpel, supplemented by the use of the nasal saw when the projection was of osseous consistency, would usually suffice. He had used the saw attached to the surgical engine, but preferred to use it by hand, and, as he always did these operations under general anæsthesia, he preferred the straight saw to that with a nasal angle. For the removal of exostoses, drilling was highly spoken of by some, but he could not speak of it from personal experience. It seemed to him not unattended with risk of septic infection.

The cases he had found most difficult to treat were those in which, in conjunction with a general deviation of the whole septum to one side, there were irregular spurs with localized bulging, combined with deflections of both the vomer and maxillary crest. In such cases, forcible straightening with excision of the most prominent spurs offered the best prospect of success, and if this failed, the best course was to remove the inferior turbinated body and to leave the septum alone. With regard to the deformity of the nose so often associated with deviation of the septum, when the lateral cartilages were merely deflected to one or other side, they might (after the septal troubles had been dealt with) be bent straight and kept in position by a retentive truss, which should be worn for a considerable time. When the nasal bones were depressed so that the nose became broad and the nasal processes of the maxillary bones separated, the bones could in many cases be lifted or wrenched into place with forceps. No untoward result, such as necrosis or other injury, had hitherto occurred in his practice, though if too much force were used it might be possible to injure the cribriform plate of the ethmoid, and thus run the risk of septic meningitis.

With regard to the depression of the cartilages at their junction with the nasal bones as the result of injury, he had not hitherto been successful in retaining them in position. It was easy to replace them, but they always fell back when the retentive apparatus was removed. In the first case in which he could obtain the patient's permission he intended, through a median incision, to turn back the skin on each side, and then to raise the depressed cartilages and fix them to the nasal bones by thin silver wire. The wire would be passed obliquely through the bones and cartilages, previously drilled, without perforating the mucous membrane. The wire

could then be battened down on the nasal bones and the skin replaced and united by suture. These operations, and especially forcible straightening, could always be more thoroughly performed under chloroform than under cocaine. There was always considerable hæmorrhage, but when the mouth was held open with a gag, and plenty of sponges with handles were in readiness, no trouble need be feared on that score.

Dr. J. H. BOSWORTH (New York) said that believing that deflections and spurs of the septum were responsible for the large majority of diseases of the nasal mucous membrane, the importance of the question could hardly be exaggerated. Etiology was not important, and did not affect either symptoms or treatment, but without doubt almost all cases were due to traumatism, subsequent inflammation, and resulting development of spurs. A point of great interest was the long period that elapsed between the injury and the occurrence of symptoms which demanded treatment. As to the method of restoring the septum, he employed the saw, cutting away the protruding spur, as one would saw a plank out of a log. The indication was to restore nasal patency, not for the purpose of curing the stenosis *per se*—that was unimportant, because the subject of such a condition could breathe through his mouth—but in order that the turbinal bodies, which constituted a most important, intricate, and elaborate apparatus, might perform their normal function. He considered that the duty of the nose was chiefly respiratory, and that anything which interfered with this duty was likely to be followed by disease in other portions of the respiratory tract, and that therein was the origin of most diseases of the larynx, trachea, bronchi, and even of the lungs. The restoration to healthy action of the turbinal bodies, and their intact conservation, were, therefore, of primary importance. He differed from Mr. Walsham in his view that post-nasal catarrh was a sequel of obstruction of the nose. The nasopharynx had nothing to do with the nose proper, and naso-pharyngeal catarrh was an independent disease.

Dr. WILLIAM HILL brought forward three anatomical specimens illustrating the subject under discussion. The first was that of a perpendicular section in two planes through the nasal organs of the sheep, showing well-marked symmetrical spurs along the two vomerine sutures. This condition existed in a large number of mammals, and was, in fact, a normal condition. Dr. Hill pointed out that the spurs ordinarily met with in the human subject were only exaggerations of slight prominences normally existing along the vomerine sutures, although by no means so well marked as in the herbivora and other mammalia. The second and third specimens had already been described, and had excited much interest in the Section of Otology on the previous day. One showed a typical deflection of the septum, together with a large spur in the median segment of the nose, and obstructing the middle meatus; the other was that of a hypertrophied and bulbous condition of the middle turbinated body and bulla ethmoidalis, and deviating the septum by pressure. The bone presented the spicular, worm-eaten surface so often met with, and he would be glad to know if Dr. Woakes considered it a case of necrosing ethmoiditis. He remarked that the patient from whose cadaver the specimen was taken had not suffered from fœtor of the nose during life.

Mr. LENNOX BROWN remarked that the fresh section shown by Dr. Hill was interesting because without doubt there was frequently seen in man a similar slight septal thickening in the same situation, which was capable of becoming hypertrophied as the result of inflammation, and such cases would explain at least some in which there was no history of traumatism. He agreed with Dr. Bosworth's remark as to the length of time that often elapsed between an accident and the

development of symptoms. As to methods of operation, he declared himself an eclectic, and while he for the most part employed the saw, he had quite as often used the trephine, and had in the last year found forcible dilatation by means of Hewetson's instruments useful. He would like information as to the experience of other members of the Section of the importance of an absolutely even restoration of a deflected septum—a point insisted on by Bosworth as of primary importance. In his own judgment, while a perfect line was difficult, if not impossible, of attainment, so long as there was patency, it was by no means essential.

Dr. GREVILLE MACDONALD thought it important to differentiate cases demanding operation from those that might be left, and emphasized the fact that a large proportion of individuals suffered from these and similar forms of nasal obstruction with absolute impunity. It was probably only in cases of interference with local or general nutrition that buccal respiration became pernicious. In such cases, as well as those where reflex symptoms, such as sneezing, &c., were induced, there was no question either as to the rectitude of, or the good results ensuing from, operation. Speaking of the methods of operating, he strongly advocated the use of Bosworth's saws in preference to the trephine driven by an electro-motor. He urged the impossibility of straightening a deflected septum, seeing that it lay between fixed limits. In such cases he advocated the perforation of the convexity in preference to any crushing. He referred to the rectification of external malformation sometimes occurring after removal of large hypertrophies of the septum, and laid down rules for prognosis in such cases.

Dr. WALKER DOWNIE said there was one point in the etiology of deflection of the septum, and which had been referred to by Mr. Walsham—namely, the unequal development of the bony framework of the nose and the cartilaginous septum, to which he (the speaker) would like to refer. The rapid growth of the cartilage, as compared with that of the bones, limited the space to be occupied by the septum, and as a necessity it was curved; and this deflection occurred quite apart from any deformity of the spongy bones, and the septal cartilage was of normal thickness. In such cases the use of forceps or truss for purposes of rectifying the deformity was useless. In the treatment of this condition the mere shaving of the part, similar, as Dr. Bosworth remarked, to the cutting of a plank out of a log, was not a very scientific procedure surgically. By such a procedure the mucous covering was removed from a large area of cartilage, and as at best the blood supply of the cartilage was low, by this operation risk was run of necrosis of cartilage consequent on denuding a large area of its mucous covering. This might result in perforation, as described by Mr. Walsham, as being an accident following the use of the cautery.

Dr. W. E. CASSELBERRY (Chicago) said the majority of cases were traumatic, as appeared from statistics cited by Delavan, but the minority remained to be accounted for. The bones were not much ossified at birth, and the congenital theory was therefore not very plausible. Naso-pharyngeal obstruction, especially by adenoid growths, by compelling oral breathing, caused elevation of the palatal arch through the influence of atmospheric pressure. This necessarily abbreviated the space between the floor of the nose and its roofs naturally designed for the septum. The septum, therefore, as development proceeded, became contorted with deviation to one or both sides. Chronic rhinitis also, when one nostril was chiefly occluded, by atmospheric pressure in the pervious nostril, would cause deflection towards the occluded side. Concerning treatment, he regarded the hand-saw as the most generally useful instrument, but chisels and circular knives and trephines driven by electric motor or dental engine were serviceable to smooth down remaining edges and spicules. For excrescences which encroached closely upon

the floor of the nose, and when the floor of the nose was not a perfect plane but curved downward, the excrescence conforming to this curve, he (the speaker) had devised a saw also curved, which could be introduced at times when a perfectly straight saw would not enter beneath the spur. In ordinary cases one would saw upward or downward according to convenience. Hemorrhage, both immediate and secondary, was not infrequent, and was not easy to check. Therefore, at the time of the operation, after cutting or sawing, he touched any spurting or profusely bleeding point with the galvano-cautery point electrode.

Dr. ADOLF BRÖNNER (Bradford) quite agreed with Dr. Casselberry as to the fact that post-nasal growths were of great importance in connection with the cause of deviations of the nasal septum. In cases of post-nasal growths there was also often a "pinched nose," and in these cases naturally a slight deviation or spur of the septum would give rise to symptoms which would not occur if the nose were not "pinched," but of normal size. In cases of spurs at the lower part of the septum, in which a knife or saw could not easily be introduced under the spur, he (the speaker) used a trephine with cutting edge.

Dr. STEWART (Nottingham) expressed the belief that, as Mr. Walsham had shown, development had a great deal to do with deviations of the nasal septum. As a corroboration of this view, it was known that it was in adult life that these cases came under notice when the nasal bones grew out of proportion to the rest of the face. As a further proof, the first effect and the chief effect, as a rule, was from intra-nasal pressure, with consequent fluxes of different kinds. If this view were correct, the object of treatment must be to relieve pressure, and this probably could best be done by removal of the offending or superabundant tissues.

Dr. SCANES SPICER suggested injury to the cartilaginous structures of the nose during parturition as a form of traumatism which led to slight displacements and alteration in the relations of the different cartilages only made evident later in life by palpable deflections, and he supported this position by the well-known relative immunity from faulty septum in races which had large pelvises and easy labours, and the frequency of septal irregularities in the races (for example, the Hebrew) which had prominent noses, and those therefore most liable to injury during parturition.

Dr. HUNTER MACKENZIE said there was one point in connection with the occurrence of deviations and spurs of the septum which deserved notice. The deviation was usually towards the right. It was rather a dislocation of the cartilaginous septum, and as a consequence of this a spur was formed in the left nostril from the nasal process of the maxillary bone. He believed that in a majority of cases blows inflicted on the left side of the nose by the right hand of the striker were potent causes of these occurrences. It was not unusual to witness parents or nurses chastising their charges in this way, and as results there was more or less complete dislocation of the cartilage of the septum in the one nostril, and the formation of spurs in the other; the latter being merely the nasal process of the superior maxillary bone, more or less altered by inflammatory action.

Mr. HEWETSON thought the deflections were generally to the left.

Dr. WOAKES said, in reply, that he was gratified to note so much unanimity in the comments. In reference to Dr. Casselberry's ingenious diagram to explain the origin of deviation in children having post-nasal growths, that extreme arching of the hard palate in these cases was in this country rare. An experience of over 2000 cases enabled him to affirm that a very small proportion had exhibited this arching. He also had not noted any generally existing occurrence of septal deviation in post-nasal growth cases.

Mr. WALSHAM said, in reply to Dr. Hill, that he was aware that it had been said that deviations were never met with before the seventh year. He (the speaker) was sure this was not a fact. He had seen these deviations, especially that associated with dislocation of the anterior end with the ridge he had referred to, in young children—in one case in a child only a few months old. In some of these, he was convinced that rickets was a probable cause. His objection to flaps in the simple form was that less room was obtained than by the simple shaving method. For the same reason, he objected to the galvano-cautery for that form, as the mucous membrane on the opposite side was apt to be burned, and perforation followed. He had not had necrosis or perforation after the shaving method.

Dr. WILLIAM HILL read a paper *On the Value of Hewetson's Method of Forcible Dilatation, especially in the Treatment of Anterior Nasal Stenosis*. He said that Mr. Hewetson, at the Leeds meeting of the Association, had advocated a new operation for the relief of nasal obstruction. Instead of reducing turbinated hypertrophies and spurs and septal deviations by tedious procedures with the galvano-cautery and by saws and drills, he had used rapid dilatation of the stenosed nasal passages by means of an instrument resembling a large steel glove-stretcher. Patency was said to be effected by crushing the turbinated bodies, and in some instances by forcible displacing or dislocating a deviated septum. No untoward results, it was stated, had followed the boldest and most forcible dilatation, although in some instances it was probable that the bony partition between the antrum and nasal fossæ had been bulged outwards and fractured. Various methods of dilatation of a less radical nature had been practised in recent years. Thus, Woakes's nasal dilator—an instrument of very slight power in comparison with that of Hewetson—was figured and described in 1883, and more than one rhinologist had been in the habit of dilating obstructed choanæ with forceps and other instruments extemporized for the purpose. Moreover, sponge and sea-tangle tents had for years been tried every now and then with indifferent success. Dr. Hill formed the opinion that the glove-stretcher form of dilator would be likely to be serviceable in a class of cases, many of which were somewhat difficult of treatment by ordinary methods, particularly in cases of anterior nasal stenosis complicated by alar collapse. After reduction of turbinated hypertrophy and the removal by appropriate means of septal ecchondroses, the result was often marred by persistent collapse of the alæ nasi. Mr. Roughton had pointed out that this obstinate condition was often due to a stenosing and contracting band situated on the inner surface of the ala exactly opposite the dimple, and at a spot making the boundary between the vestibule and the nasal fossæ proper. This band, when tightened and contracted, approximated very closely to the septum, and was a common cause of anterior stenosis. Division of the band with the knife was not a satisfactory procedure, and Dr. Hill had obtained excellent results by means of forcible dilatation. For this purpose he employed an instrument (designed by Mayer and Meltzer) which might be described as a double lever of the "third kind," after the pattern of a rectal dilator, working by means of a screw with a graduated index attached. This form of instrument ensured a more parallel movement of the blades than was possible with Mr. Hewetson's

dilator, and the screw working an index enabled dilatation to be accomplished both gradually and with precision as to amount; moreover, it was easy to dilate both nostrils without any risk of unnecessarily displacing the septum by placing a blade in each fossa. The dilator, though not designed as a septal instrument, could also be used to obliterate a horizontal sigmoid deviation of the septum, as the screw worked the blades both ways. He had recently found the instrument of use in a case in which anosmia resulted from obliteration of the "olfactory slit" on account of great expansion of both middle turbinated bones. Smell returned on crushing the middle turbinal bodies to normal dimensions. He had now employed forcible dilatation in twenty-one cases of marked anterior nasal obstruction with very encouraging results, and believed the operation to be useful, though in a more limited degree, in median stenosis.

MR. BENDELACK HEWETSON thanked Dr. Hill for speaking so kindly of his treatment of nasal stenosis. He still used it with continued success in a large number of cases. He found that in many cases deafness, which was previously the result of nasal stenosis, was at once relieved by simple dilatation only. It was of great use also in enlarging the cavity for the removal of growths.

DR. SCANES SPICER had found many cases of nasal stenosis, with consequent mouth breathing, not satisfactorily relieved by any intra-nasal or post-nasal measures. These, on closer examination, were found to be due to alar collapse, or inspiration from a narrow opening from the vestibule into the anterior nares. Three years ago he therefore forcibly dilated this junction with ordinary polypus forceps, and ordered tubes to be worn at night for some weeks. At Leeds last year, he found that Mr. Hewetson had been proceeding on similar methods, and had devised special forceps for dealing with this condition. The weight and strength of these he considered an advantage, as adding to the delicacy with which they could be used. He had since found this simple method sufficient to relieve nasal stenosis, and render removal of spurs unnecessary. He never used forcible dilatation for intra-nasal stenosis proper due to bony abnormalities.

MR. LENNIX BROWNE desired to confirm Dr. Spicer's experience, and once more to certify to the value of Hewetson's instrument. It did not matter if the deviation was fractured, and in fact that was often the only means by which good was effected. He had, however, by a slight modification of Hewetson's instrument, used it also as a septum straightener. A point not noted by other speakers, nor much by writers, was that in many cases in which septal deviations were associated with deafness, cure of the deflection was indicated for the purpose of passing a catheter, but when the obstruction was removed the hearing was so improved that catheterization was no longer necessary.

DR. ORWIN had used Hewetson's forceps frequently, and always with good results; invariably the septum nasi had been fractured and pushed over into the other nostril. He had not noticed any untoward effects from pressure upon the inferior turbinated body.

DR. SCANES SPICER made a contribution upon *Medicated Nasal Cylinders in the Treatment of Hay Fever, Catarrh, Ozana, Nasal Diphtheria, etc.*—He said that having had occasion frequently to use the ordinary medicated nasal bougies in the treatment of various nasal disorders, he had observed in them the great disadvantages that they

blocked the nasal channels, and so distressed the patient, and also that they slipped back whole or piecemeal into the naso-pharynx and caused much alarm. To obviate these inconveniences, the author had had made some hollow glyco-gelatine cylinders which were inserted into the nasal passages on hollow oval vulcanite plugs. The plugs and cylinders were of graduated sizes for different sized channels. The cylinders were variously medicated with definite quantities of such drugs as morphine, bismuth nitrate, cocaine hydrochlor., iodoform, biniodide of mercury, acetate of lead, etc. The medicated cylinder was inserted on the vulcanite plug and introduced into the nasal passages (one on each side), where it was allowed to remain and dissolve. The process of liquefaction took several hours, during the whole of which time the rhino-pharyngeal tract was continuously exposed to the action of the drug, and soothened and moistened by the glyco-gelatine. Moreover, physiological nasal respiration was carried on the whole time, a source of great comfort to most patients. Neither cylinder nor plug could slip back into the pharynx; for, in addition to the security afforded by selection of a plug of appropriate size, each plug was provided anteriorly with a little thread which could be attached to the fellow of the opposite side. There was no caking or clogging as with ointment and powders, and if the cylinders were inserted on going to bed (they should only be used in the horizontal posture) they would allow the patient to sleep, and yet keep up continuously the action of any drug which might be otherwise applied during the day. The writer had found the greatest use for these cylinders not only in the conditions mentioned, but also after operations in the nose, eczema of the nostrils, post-nasal catarrh and whooping-cough. For the efficient carrying out of the idea he was indebted to the skill of Messrs. Corbyn, Stacy & Co.

Mr. LENNOX BROWNE read a paper *On Faucial and Pharyngeal Tenesmus*, and said: Tenesmus (τενω), was a term used to define "a continual inclination to void the contents of the bowels, accompanied by straining and pain, and with dejection of a small quantity of mucus only;" but it had also been applied to the bladder and œsophagus. When occurring in the last-named situation, it was often exhibited as a symptom of functional dysphagia, due to absence of teeth or other cause for imperfect mastication, or as the result of varix, one of the chief causes of which was alcoholism. It was proposed to apply the term "tenesmus" to the fauces and pharynx in those cases in which there was a continual inclination to void or to swallow an imaginary foreign body, accompanied by more or less cough, straining, and pain, either after or independent of functional exercise of the voice, with expectoration or welling up of small quantities of mucus, and occasionally, more especially in rising from sleep, by the discharge of small quantities of blood. Tenesmus would, in fact, not only apply to the condition now known as "globus hystericus," but would embrace all those numerous and various subjective symptoms which occurred in the throat and had not until recently been acknowledged to have other than a neurotic basis. The author claimed priority of discovery of the objective causes for these conditions in a paper read so

far back as 1880 at a Laryngological Congress at Milan. They were mainly three: (1) Hypertrophy of the lymphoid tissue at the base of the tongue and the lingual tonsil. (2) Varix of the vessels in the same situation, the two constituting a condition called by him "throat piles"; and (3) A congestion, fulness, sometimes even obvious enlargement of the thyroid gland. The first condition had indeed been noted previously by others as impeding the free movement of the epiglottis, and a drawing of it had been made in the first edition of the author's work, published early in 1878, but its importance as an explanation of globus, and its association with varicosity of the vessels and with thyroid fulness, were first asserted in 1880. Functionally, the physical conditions causing throat tenesmus were mainly due to over-use, or wrong use of the voice, and to bolting the food, but the underlying constitutional causes were many. Principal was a general varicose diathesis, evidenced by the occurrence of rectal piles, varicocele, varix of lower limbs, cold feet; hepatic stasis, constipation, and dyspepsia were the rule; more rarely there was organic evidence of cardiac weakness. It had been observed by the author in two cases of diabetes. Almost all these conditions implied a debilitated vaso-motor system. It was more frequent in women than men, and in the former was not seldom associated with menorrhagia. The first manifestations, and especially the slight morning hæmorrhages, generally arose with the menopause. It had also been observed as a sequel of epidemic influenza. In one such case, a gentleman, aged fifty-six, the patient had suffered on rising from sanguineous discharge for five months, amounting to about a teaspoonful, which, as his wife observed, recurred at regular monthly epochs, and lasted for three to five days. In many cases there was concurrent relaxation of the uvula, removal of which failed to cure the patient unless the other conditions were recognized and concurrently treated. It was also seen in connection with, and, as was believed, as a result of nasal stenosis. Treatment consisted in destruction by electric cautery of the overgrown tissue and enlarged veins, with correction of the faults of health and of local function. Occasionally the hypertrophies were of sufficient size to enable them to be removed by a snare. Astringents or iodine failed to give permanent relief in any but the mildest cases.

Dr. JOHN T. HARTNETT said that in the treatment of pharyngitis the application of caustics and narcotics was not always called for. On the contrary, sprays which were mildly astringent, or inhalations of air charged with such volatile preparations as pine oil and eucalyptus, especially if combined with a little aromatic spirit of ammonia or peroxide of hydrogen, were useful. The pharyngitis from which smokers suffered was particularly amenable to this treatment.

Dr. BRONNER thought that most cases of pharyngeal trouble were caused by some affection of the pharyngeal, or faucial, or lingual tonsils. He thought that the pharyngeal tonsil was most frequently at fault, partly on account of the frequent occurrence of affections of this tonsil, and partly because there was much erectile tissue in the pharyngeal tonsil, and a consequent larger secretion. He always first treated, if necessary, the pharyngeal tonsil, and found that the affection of any other adenoid tissue in the pharynx disappeared without treatment.

Dr. WILLIAM HILL, whilst endorsing the correctness of Mr. Browne's

observations on pharyngeal tenesmus, mentioned his own experience of this symptom in connection with lymphoid hypertrophies along the salpingo-pharyngeal fold, pharyngitis hypertrophica lateralis, in which vocal fatigue and tenesmus disappeared only after thorough curetting of this fold.

Dr. WALKER DOWNIE said Mr. Lennox Browne appeared to consider that all cases of what he had termed faucial and pharyngeal tenesmus were dependent on some local affection. Many cases in his (the speaker's) opinion were of a purely neurotic character, or were dependent on some gastric derangement, and quite apart from any local physical change. In some there might be slight congestion of the pharyngeal veins, but this readily yielded to treatment directed to the gastric affection. The connection between glycosuria and a varicose condition of the pharyngeal veins, referred to by Mr. Browne, was of considerable interest, and quite recently such a case, and of a marked character, had been under his own observation.

Dr. PEGLER alluded to a case in which a species of pseudo-hæmoptysis had continued for several months, and had resisted treatment directed to the chest. The patient was a highly neurotic subject who had been the subject of hysterical attacks, and whom it was extremely difficult to convince that he was not actually suffering from phthisis. When treatment was recommended in the form of application of the galvano-cautery to the pharynx, the patient took fright, and left hospital rather than submit.

Dr. DONALD STEWART emphasized the importance of specialists considering this affection, as Mr. Browne had done, in connection with obstruction to venous circulation in the chest and abdomen. He also asked if there was any one local condition that produced pharyngeal tenesmus more than another. In reference to treatment one should have two objects in view, namely, to promote the welfare of the general circulation as well as the local condition, and it was important to be clear as to what region required treatment the most.

Dr. JACOB wished Mr. Browne would define more exactly the conditions which led to those symptoms, which seemed to him to proceed from a large number of morbid conditions of the throat. Was tenesmus more likely to be caused by hypertrophy of the lingual rather than the other tonsillar bodies? With regard to "neuroses," he thought the number of such cases would be likely to diminish as knowledge increased. Neuroses being mainly an increased irritability to react to stimuli, in a neurotic person a smaller cause had to be searched for.

Mr. LENNOX BROWNE, in reply, said that in his experience mild astringents and vapours were useless. Hypertrophy of the lingual tonsil was rare in children, but common in adult life at a time when the other gland had shrunk. He had not alluded to the form of hypertrophy mentioned by Dr. Hill, but agreed with him as to its being often the cause of the symptoms described in the paper. He agreed also with Dr. Downie that the condition was undoubtedly due to a neurosis, and so he had always insisted, but it was rare that objective evidences of the neurosis could not be found if searched for. Many of these cases were mistaken for pulmonary hæmoptysis, and yielded to proper treatment. Replying to Dr. Donald Stewart and Dr. Jacob, he believed that the condition he described was an extension of ordinary pharyngitis, and he personally had been far more successful in treating that troublesome affection since he had recognised lingual tonsillar hypertrophy and varix. The condition was undoubtedly more common in women, probably because their vaso-motor system was generally more debilitated than in the male sex. He concluded by saying that it was of primary importance to recognise and treat underlying constitutional and exciting functional

and other causes; but this was true of every other disease, and should never be lost sight of by the specialist.

Dr. HARTNETT read a paper upon the *Insufflation of Medicated Air*. He pointed out the advantages of the insufflation of medicated air over inhalation, and described and exhibited an apparatus which he had devised for that purpose.¹

Dr. BRONNER thought such instruments were mainly useful for occupying the patient, and were of only a palliative character.

Dr. WALKER DOWNIE said he had found Dr. Hartnett's apparatus useful in several cases of granular pharyngitis. Guaiacol he had found a useful substitute for creasote. It was a powerful germicide, readily miscible with oil, and was free from the disagreeable odour of creasote. In combination with menthol, he used it largely as an intra-laryngeal injection.

Dr. HARTNETT, in reply to Dr. Bronner, said pharyngitis and other affections of the membranous lining of the respiratory tract were often but the local manifestations of constitutional disease, and it would be as irrational to neglect the local treatment as it would be for a surgeon to neglect dressing a wound and attend only to the constitutional symptoms.

Dr. WALKER DOWNIE exhibited *Specimens of unusually large Nasal Polypi, and described the Methods used in their Removal*. The first one was removed from a lady, aged seventy-four; it measured $2\frac{3}{4}$ inches in length, and $1\frac{1}{2}$ at its greatest depth. Two specimens taken from another woman, aged forty-nine, were also shown, the larger of which was $3\frac{1}{4}$ inches in length. Another specimen was removed from a man, and, after prolonged immersion in spirit, still measured $2\frac{1}{2}$ inches in length. Another polypus shown weighed a few grains short of half an ounce, and had occupied the post-nasal space. All of these polypi were removed with forceps with long blades, hollowed out along the centre line of their inner surface, and furnished with fine teeth along the edges; the handles were provided with a lock. The forceps was introduced under good illumination with the blades open, so as to include the whole area from which the polypus sprang, along with a thin scale of the lower edge of the bone. They were then closed, locked, and left in position, by which manœuvre the vessels leading to the growth were so crushed that little or no bleeding followed the removal of the polypus. After two or three minutes the forceps was gently turned round, and, when half or two-thirds of a complete turn had been given, the mass readily came away. The nasal fossa was then plugged with antiseptic wool, and the patient left for a week, when if any other polypi were visible they were dealt with in the same way. The mucous membrane in the neighbourhood of the parts from which they sprang was then carefully seared with the electric cautery. In the case of small polypi with distinct pedicles, he used the galvano-caustic loop, or cold wire snare, followed by cauterization of the site of the growth. In every case cocaine was used before the operation.

Dr. ADOLF BRÖNNER read a paper upon the *Pharyngeal Tonsil and so-called "Relaxed Throat."* He drew attention to the frequent occur-

¹ See "British Medical Journal," August 23rd, p. 462.

rence of diseases of the pharyngeal tonsil or adenoid tissue at the vault of the naso-pharynx. Enlargement of this tonsil, commonly called post-nasal growths, was very common in children. About 4 or 5 per cent. of all children had post-nasal growths. These growths were of great importance in connection with diseases of the middle ear. Nearly 90 per cent. of children with post-nasal growths had affections of the ear. The growths also prevented the normal development of the chest and predisposed to diseases of the lungs. This fact was of very great importance, and not sufficiently appreciated. In most cases of post-nasal growths there was enlargement of the turbinated bones and also of the faucial tonsils. In these cases they ought first to remove the growths, and then, in many cases, the other affections subsided without any local treatment. Dr. Bronner had seen numerous cases in which the galvanocautery had been applied to the nose and faucial tonsils in a most vigorous manner, and the pharyngeal tonsil not treated; also cases in which all three parts had been treated, when the removal of the post-nasal growths alone would have sufficed. He used Hartmann's curette in removing the growths, and very rarely gave an anæsthetic. The operation for removing the growths would never become popular as long as surgeons used large and clumsy instruments and gave anæsthetics. Towards the age of puberty the growths underwent spontaneous degeneration; but in these cases the pharyngeal tonsil very rarely became normal. On careful examination they found chronic catarrh, or atrophic catarrh, or Tornwaldt's cysts. If the growths were removed they rarely found any subsequent changes in the tonsil. In most cases of chronic diseases of the nose or pharynx the pharyngeal tonsil was found to be affected. Tornwaldt's cysts were very common, though not always in the middle line of the tonsil, as Tornwaldt asserted. Dr. Bronner used a modification of Hartmann's curette for the removal of the cysts. In most cases of post-nasal catarrh or relaxed throat the seat of mischief was in the pharyngeal tonsil.

Dr. DONALD STEWART said he always used an anæsthetic in removing the growths, and he held that in slight cases an alkaline wash would effect a cure; and, further, that if the operation were once properly performed, it would not again require to be repeated. In giving due attention to this affection, the surgeon had the most gratifying results in ear and throat affection.

Mr. MARSH said he had operated upon a considerable number of cases of naso-pharyngeal growths. In children he invariably employed an anæsthetic, both to avoid the fright and struggling, and to ensure thorough removal. He preferred the recumbent position, with the head low over a pillow, and had never had the slightest difficulty from blood passing into the larynx. He used either a curette—and thought in the position he placed the patient a straight one was more easily manipulated than Hartmann's—or Walsham's modification of Löwenberg's forceps, preferably the former, on account of the greater rapidity with which it could be used. Personally he had been quite unable to remove these growths with the finger nail, and thought where this was possible no operative procedure was needful, but that careful local treatment would prove quite as efficacious. His results had been very gratifying, both as regards the rapid benefit to the patient and the non-recurrence of the growths.

Dr. GREVILLE MACDONALD dissented strongly from the practice of removing

post-nasal adenoids without an anæsthetic, and advocated the employment of forceps in preference to currettes.

Dr. ERNEST H. JACOB read a paper, entitled *Remarks on Functional Aphemia*.—Functional disturbances of the faculty of speech are by no means uncommon. Megrim may be attended with a very considerable amount of aphasia. There are few cases of chorea without some impairment of speech. The dumbness of fright and emotion, as is well known, and functional paresis of the laryngeal adductors, is one of the commonest nervous affections seen by the laryngologist.

By aphemia he meant a pure motor aphasia, in which the intellectual faculties are unaltered, and the patient is able to understand perfectly and to express himself without difficulty in writing. In spite of the classical objections to the use of the term "aphemia," it is a convenient one to express this condition.

In a lecture on "A Case of Hysterical Mutism in the Male," Charcot describes, with his characteristic clearness, a case of functional aphemia, remarking how rare a symptom this is of organic brain disease, and in an appendix to this lecture, as published in the New Sydenham Society's translation, Dr. Cartez gives an abstract of twenty cases in both sexes which may be classed under this head, six of them from Charcot's clinique, and notes the laryngological phenomena. Of these, two are taken from Dr. Wilks's book on nervous disease. But records of cases of this kind are rare in English literature. Dr. Bristowe has published two, and one described by Dr. Bastian in his opening address in the Medicine Section of the British Medical Association at Dublin may perhaps come under this head. The special interest of the subject for this Section is the fact that functional aphemia may complicate or alternate with functional aphonia, which is so common, or, as one of Dr. Jacob's cases shows, supervene in the course of an ordinary laryngitis.

This is not the place to discuss the vexed question of the localisation in the brain of the functional defect, whether, according to Dr. Ross, it bears on the question of the value set on Broca's convolution as a real centre of speech: or involves merely a break in different inter-nuncial fibres in their course from the left glosso-kinæsthetic centre to the articulatory centres in the bulb, as held by Dr. Bastian. The condition resembles superficially in many respects the loss of speech in advanced bulbar paralysis, though happily there is very little danger of confusing them.

Two cases of functional aphemia have been recently under his care, and in addition to these he has seen a third case in which somewhat similar symptoms were noted, but on the absence of organic disease in this last he is by no means sure.

The first case was in a man, aged about fifty, who applied for relief at the out-patient department of the Leeds Infirmary, bringing a paper on which was written: "I have pain in my shoulder, I can hear but not speak." The history, obtained subsequently, showed that he had had fits in infancy, but enjoyed good health till he was thirty-four, when after monetary losses he began to show signs of mental instability, violent

temper, etc., and when agitated was unable to speak. He gradually became perfectly dumb, though he retained for some years the power of saying "yes" and "no." For the last five years he had not spoken, communicating with his wife by means of signs and writing, but understanding perfectly what she said. He seemed quite intelligent, could cough, and blow out a candle. He resisted laryngoscopic examination, but it was ascertained that the cords could be approximated, and occasionally a hoarse sound uttered. There was no attempt at articulation, though he willingly made attempts when urged to do so.

The pain in the shoulder was found to be due to dislocation. No account could be given of this, except that six days before he had awakened in the night and found his arm in pain. (In all probability he had had an epileptic fit and fallen out of bed.) Thinking to investigate the aphasic symptoms later, Dr. Jacob asked his surgical colleague, Mr. W. H. Brown, to reduce the luxation. To facilitate this, ether was administered, and on recovery from the narcotism he began to speak clearly and volubly, evidently much pleased at recovering his power of speech, and determined to make up for lost time. Some weeks after, when seen again, he was speaking well. Dr. Jacob wished to point out here that there was no wilful dumbness, such as is not uncommon in cases of insanity. The man was greatly pleased at recovering his power of speech; nor was there the entire loss of phonation which obtains in functional aphonia, though there was great want of tension of the vocal cords. The patient was not morose or melancholic, though occasionally giving way to passion.

The next case occurred in a healthy-looking miner, aged thirty-four. He applied on January 13th, 1890, suffering from slight hoarseness, and his cords were injected. He gave a history of having had some epileptic fits eight years ago, six in all, and at one time he had been intemperate. Some zinc chloride was applied to his larynx, and a pine-oil inhalation prescribed. A week later he appeared with a paper, on which was written, "Five days ago I lost my voice. I feel as well as ever I did, but I have not been able to talk, and I cough." Inquiry showed that he had been quietly talking with some friends on no very exciting topic, feeling rather hoarse, when he was suddenly seized with dumbness. His larynx was now rather difficult to examine, but the cords could be approximated without tension, and an occasional hoarse grunt elicited. After a few trials he managed to utter one or two vowel sounds. Remembering the effect of the anæsthetic on the former case, Dr. Jacob had ether administered. After he had taken one or two breaths the inhaler was removed, and he articulated "yes" in answer to a question, and after recovery from narcotism could talk freely. He remained an out-patient for a few weeks, but there was no return of the dumbness.

A third case is perhaps worth mentioning, though the history is by no means complete.

A man, aged thirty-five, temperate, stated that eight months ago he was seized with vertigo in the street (four months previously he had fallen from a bicycle and hurt his head). He walked home without assistance, but an hour after he became unable to speak, though he was otherwise perfectly intelligent, and this inability lasted about twelve hours. The speaker

had no note as to whether he could write. When seen he was suffering from a general nervous condition, with inequality of pupils, some wasting of the left leg, and slight hesitancy of speech, suggesting an early condition of general paralysis. He has, however, greatly improved under treatment, and is now nearly well. There was no history of syphilis.

On the last case Dr. Jacob does not offer a very positive opinion as to whether or not the lesion might not possibly have been an organic one. The two others, however, are strictly comparable with those collected by Dr. Cartez. Taking the whole series of recorded cases, we see they vary very greatly in point of severity. Case III of the French list, that of a girl who was dumb for eight days during an attack of chorea, records a by no means uncommon phenomenon. Case VI was that of a man, aged twenty, who became both deaf and dumb, after a severe disappointment, for fourteen days. Case IV was that of a lad, aged nineteen, suddenly seized with mutism and a number of characteristic hysterical symptoms. On the other hand, the English cases showed a much more severe list of symptoms, such as a status epilepticus, lasting many hours and frequently repeated—a condition of nervous discharge with consequent exhaustion, which would be likely to produce very serious effects. We are comparatively unfamiliar in England with true hysteria in the male, at all events, in adults, and Dr. Jacob considered his second case, occurring as it did in a strong Yorkshire miner, with a not very well-marked neurotic history, as very remarkable. He regretted no further search was made for other hysterical symptoms, anæsthesia, etc., in this case.

He further pointed out that in neither of Cases I and II were the adductors of the larynx completely paralysed, though the tensors were parietic. The laryngoscope shows very different degrees of paralysis in these cases. In one case, reported by Dr. Johnson, of Chicago, the cords were in the cadaveric position; later the cords could be somewhat approximated, but the arytenoid remained powerless. In another case there was paralysis of one adductor. In these, as noted above, the crico-thyroid was mostly involved.

It is said to be easy to induce this condition artificially by hypnotic suggestion in suitable cases. This may possibly give a hint towards treatment where other means have failed. The speaker can find no note of the treatment of this condition by anæsthetics, though the method is well known as a treatment for hysterical aphonia. Electricity has frequently failed. One of Dr. Bristowe's cases was laboriously taught to speak in the same way as a child learns. In many cases the voice returned gradually of itself after a condition of stammering or hesitation lasting several days.

In conclusion, he cannot but think these cases must be rather more common than is generally supposed. To quote the words of Dr. Bristowe: "When one considers the nature of the nervous disturbances by which aphonia and aphemia are respectively caused, and the close functional relationship there is between these two functions of speech, it seems odd that aphemia should not be a more common outcome of hysteria and more often associated with hysterical aphonia than it is."

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THE TONSILS AND THE ADENOID TISSUE
OF THE PHARYNX.

Dr. SWAIN read before the last meeting of the American Laryngological Association a most interesting paper upon the rôle of the adenoid tissue of the pharynx. We have hitherto known so little about this tissue, why it exists at all, and what purpose it fulfils, except to provide work for the throat surgeon in effecting its removal, that researches upon such a subject are of great interest. All of us have at some time or other been puzzled by the query, "What function do the tonsils subserve?" Several attempts, more or less unsatisfactory, have been made to answer this question.

Probably the only manner in which we are likely to arrive at a solution of the problem is by beginning *de novo* with the study of the development of these organs, and of similar deposits of lymphoid tissue in and about the tongue, pharynx, and naso-pharynx, combined with comparative anatomical studies. In an organ, especially such as the tonsil, which undergoes continual evolutionary change, how are its analogies with other similarly constituted organs, or notions as to its functions, to be properly deduced without a complete knowledge of its life-history? Among recent important contributions to the subject, the studies of Killian and of Retterer, perhaps, are the most conspicuous. Dr. Swain, in his otherwise extremely interesting paper, curiously enough makes no mention of the latter, while he quotes Killian at length with the statement that his own studies in development coincide entirely with those of Killian; and it is odd that in the latter's monograph,¹ with an otherwise complete bibliography, there is no reference to the French observer's monograph, part of which appeared in February, 1888,² and by whom several notices had been communicated to the Academy of Sciences and the Société de Biologie in 1885 and 1886, notes which are embodied in this monograph. For this reason, amongst others, we devote some space to the monograph of Retterer.

¹ Morphologisches Jahrbuch von Gegenbaur, xiv. Band, Heft 4, 31 Dec., 1888.

² Journal de l'Anatomie et de la Physiologie Normales et Pathologiques, 1888, Feb. and June.

The French observer's researches led him to the following general conclusions :—

The tonsils are developed as follows :—The epithelial elements of the blastoderm (ecto or entodermic) furnish the proper or glandular tissue ; the mesodermic cells give rise to the connective tissue laminae, the blood-vessels, and probably the lymphatics. The general type of development is that of glands in general. Epithelial invagination exists in both, but, instead of only the basilar layer of the original epithelium proliferating as in glands, the involution comprises all the epithelial layers—masses of basilar elements or secondary buds are concerned in the development of the glandular tissue. In the tonsils the primitive invagination, instead of persisting as an excretory canal as in glands, gives rise to crypts or diverticula. In the tonsils no basement membrane is found as in glands. The epithelial elements of the tonsils preserve the form, properties, and characters of the basilar cells of the epithelium, but towards the end of their existence they disappear by fatty retrogression, and are replaced by alveoli. The mesodermic tissue forming the framework of the organ develops as in other organs, acquires stellate and fusiform cells, and becomes a reticulated framework. Later on, it increases in thickness, and the stroma becomes fibrous. The epithelial and mesodermic elements evolve side by side according to their respective types.

The multiplication of the ectodermic elements is preceded, accompanied or followed by proliferation of the mesodermic elements of the chorion, and these two correlative phenomena are the origin of the tonsillar tissue. In all mammals the tonsils have a similar development, but the involution is not the same in all groups, remaining single in some, and being divided in others. Each primary or secondary involution which persists as a diverticulum or crypt is the centre of formation of a lobe, and each lobe is composed of a series of similar segments or lobules. The evolution of a lobule is the same in all mammals, in spite of differences as to form and volume of the organ. Formed originally of a medullary portion which is epithelial, and a cortical portion which is angiothelial (lymphoid) tissue of the first stage, the lobule becomes vascular, and passes into the second stage at its periphery, the central part submitting to modifications of the first stage. The extension of this process tends to equalization. The blood-vessels have the same concentric evolution, and the radiated disposition of the vascular system in the lobules results from the centripetal invasion of the lobular mass. This disappears when the stroma has become fibrous, and all the tonsillar lobes have lost their segmentation into lobules. In the adult the lymphatic system occupies the whole thickness of a lobule, and forms a network of canals, lined with flat epithelium or endothelium.

The walls of these lymph channels are everywhere closed, and do not open into the reticulum by stomata, nor by peripheral widenings.

The apparent resemblance of the tonsils to other lymphatic glands is striking, a fact which has often been insisted upon. There is, however, only a superficial resemblance. The tonsillar lobules are separated from each other by connective tissue septa, in which are found no trace of the

lymphatic sinuses found in glands of the latter order. The lymphatic vessels in the tonsil resemble the closed network seen throughout the general system, and bear no analogy to the lymph sinuses found in glands. The tonsillar vessels have walls of their own, independent of the connective tissue stroma. Lymph cells cannot be retained within the meshes of the tonsillar tissue, and the elements of this tissue cannot penetrate the walls of these vessels or enter them by diapedesis. The tonsils, being different in their development from lymph glands, probably have a different function. If the function were the same it is surprising, as Retterer remarks, that the mode of development should differ so essentially. It is possible that the function of the epithelial cells of these organs resembles that of glands in general, with the difference that the product of secretion enters directly into the blood or lymph, in place of being projected on to a mucous surface, in order to exert any action upon matters brought in contact with them. Neither anatomy nor development, says Retterer, justify us in the conclusion that the function of the tonsils is to manufacture leucocytes. The only way to determine the question physiologically would be to make direct experiment upon the blood and lymph coming to and going from these organs, with the purpose of observing what change has taken place in the circulating fluid—a method of experimentation which, though followed with regard to the liver, is obviously impossible in the tonsil.

The researches of Stöhr³ are referred to by Killian, evidently in support of the extraordinary theory which he emits as to the function of this adenoid tissue of the pharynx. Frey, and others, for long held the idea that the tonsils formed definite elements, which, by migration, reached the surface of the palatine or buccal mucous membrane. Stöhr, finding in a young kitten some masses of leucocytes situated immediately below the epithelium, and the epithelium itself being traversed by groups of young and small cells at this spot, considered them as leucocytes which had wandered into the epithelium. "The migration of leucocytes exists everywhere where adenoid tissue is in contact with the epithelium," he remarks (Virchow's Archiv., p. 223). He found the same thing in a number of observations, and he concluded the tonsils in mammalia to be organs the chorion of which is infiltrated with lymphoid elements, and these latter emigrate *en masse* across the epithelium of the mucosa and its diverticula. As Retterer remarks, the origin of the angiothelial (lymphoid) or epithelial element is ignored, its development is supposed to come from the mesoderm, and it is confounded with "leucocytes." Stöhr's observations were made upon young animals, on tissues of an age when epithelial buds are prolonged into the mesodermic tissues. Instead of following these elements, which develop from without inwards, Stöhr causes them to travel in an opposite direction, misconceiving the whole developmental process, and indeed later on he remarks even upon the insurmountable obstacle offered to the passage of white corpuscles outwards by the thickness, etc., of the epithelium.

The observation of Stöhr, wherein he found a group of small fungi (Pilze) within the lymph cells beneath the epithelium of the tonsil, may be

³ Biol. Centralblatt, Vol. II., No. 12, and Virchow's Archiv., Vol. 97.

explained in other manner than the interpretation evidently put upon it by Killian, and lends but little support to the theory of the latter.

The pharyngeal tonsil appears to be the oldest in point of development, and in the lower forms of life, such as birds and reptiles, it is present in well-developed form. In man the earliest embryonic development of lymphoid tissue in these regions would appear, from Killian's researches, to be confined to the upper and back regions of the roof of the pharynx, and only at a later period does it extend downwards upon the pharynx. The development of adenoid tissue is always thickest in front of the region of the bursa, *i.e.*, just in front of the angle or curve formed by the roof with the posterior pharyngeal wall. Towards the end of embryonal life the folds in this region becomes thick protruberances, and form deep furrows, the middle one being the most prominent. Follicles appear either then or later. Between the sixth month of embryonic life and the end of the second decennium, this tonsil slightly moves its position from the baso-sphenoidal to the baso-occipital region. Without entering into the question of the existence or non-existence of the bursa pharyngea as described by Tornwaldt and Luschka, Killian insists that the real bursa has only a short embryonic existence, and does not persist as such in the adult, or even into childhood for long. The true bursa exists before the tonsil, and must not be confounded with the recessus pharyngeus medius of the adult. Schwabach described this so-called bursa as an integral portion of the pharyngeal tonsil without any special pathological character of its own, thus agreeing with Ganghofner, who in turn described it as simple depression of the mucous membrane not connected with the basilar process by cellular tissue, as contended by Luschka. Of the faucial tonsils, Dr. Swain says that they originate about the same time as, or a little later than, the naso-pharyngeal organ. The so-called "lingual tonsil" appears to develop at a still later period, and the collections of adenoid tissue in the lateral walls of the pharynx also. With the difference in time of development of these varied deposits of lymphoid tissue are associated certain clinical characteristics intimately related to the differences in evolution and activity of these structures; thus with the activity of the naso-pharyngeal and faucial tonsils, the period of evolution of which is greatest during the early years of life, is associated the clinical frequency of disorders of this portion of the lymphoid tissue, while it is only later and in adult life that affections of the lingual adenoid tissue are met with, corresponding with its later evolution and development, and the same is true of the collections of lymphoid tissue upon the lateral walls of the pharynx.

It is in connection with these embryological studies that Killian has advanced some curious physiologico-pathological ideas. According to him, these lymphoid structures are there for the purpose of destroying micro-organisms, which are already existent in the inspired air. He has evidently adopted the bacterium-destroying theory of the intestinal lymph cells propounded by Metschnikoff - a theory which, however captivating, is not yet to revolutionize pathology.

Man and domestic animals are, according to him, more exposed to micro-organisms from their habits than animals living in greater freedom

as to atmospheric surroundings, and require more leucocytes to wage a constant fight against micro-organisms. The theory seems, if not extravagant, at any rate startling, and is nothing more than a theory, equally difficult of substantiation and of disproof. Most other observers have considered the tonsils to have some such function in reference to absorption, to the digestive process, or as blood-producing organs, like the spleen.

But whatever functions we ascribe to the tonsils and the chain of lymphatic tissue in the pharynx, there is no doubt of the importance of these structures as points of infection of the organism. Indeed, the wonder is, that with the many lodging-places in the folds, crypts, recesses, etc., of the pharynx, naso-pharynx and mouth, that infection does not more often occur.

The secretions of these parts have been found to contain quite a number of pathologically virulent bacterial organisms, *e.g.*, staphylococcus and streptococcus pyogenes, pneumococcus, and many kinds of septic bacteria, even Koch's tubercle bacillus, and the micro-organism of actinomycosis.

In these spots they may be retained, and grow for an indefinite time without causing any inconvenience, but as Jeanselmé remarks,¹ "let the feeble barrier which protects the economy against the invasion of parasites be broken : let the tonsil be disorganized by previous inflammatory conditions ; let a herpetic vesicle leave the mucous membrane exposed by ulceration ; let a fragment of incompletely masticated food tear the thin protective membrane, and infection may result, if the subject is otherwise in a receptive condition (bodily depression, etc.). Perhaps, even without traumatism, it may suffice that the phagocyte function of the follicles be abolished, in order to obtain systemic infection. Whatever be the cause favouring their entry into the lymphatic channels, micro-organisms are carried to the neighbouring glands, and if these fail to filter the lymph from the germs within it, the entire economy will be infected."

We need not adopt the extravagant idea of the presence of bacillus-eating cells in the lymphoid tissues of the pharynx to explain immunity from infection *via* these structures. As mentioned in Retterer's critical remarks upon Stöhr's observations, such an assumption is founded upon a misconception of embryological and histological facts. If these structures were all important in this respect, it would become our duty, instead of extirpating, to leave them severely alone. We are not aware, however, that persons who have had these structures removed are rendered any way more liable to infection; indeed, the evils attendant upon excessive growth of these lymphoid structures are much greater than any supposititious danger that might arise from the removal of these bacillus-devouring organs. If such function be ever proved to appertain to the tonsils, pharyngeal or faucial, it must be admitted that, with the knowledge of the frequency of infection of the system through the tonsils which we possess, they do their work "indifferently well."

¹ "The Pharynx, and Tonsils in particular, considered as points of entry of Infection." *Gaz. des Hôp.*, 1890, No. 11.

DIPHTHERIA.

Delthil.—*Avian Origin of Diphtheria.* Congrès de Limoges. August, 1890.

M. DELTHIL writes on the ornithological origin of diphtheria. He remarks that the pathogenic agent of diphtheria in animals belongs, as in human diphtheria, to the group of bacilli forming crosses and disks. He maintains that the exciting cause of the disease is the same in man and animals, and that its manifestations are similar. Further, the identity is rendered more probable, inasmuch as the human bacillus, when inoculated upon an animal, preserves, in passing from one species to another, its peculiar character; so that it appears probable that re-inoculation of a human being after its passage through several animals would reproduce diphtheria. Joal.

Saint-Yves-Ménard.—*On the Non-Identity of Diphtheria affecting Man with that affecting Birds.* "Revue d'Hygiène," March, 1890.

HUMAN diphtheria and that of birds are two distinct diseases, produced by two absolutely different microbes, as demonstrated by the researches of MM. Löffler, Cornil, and Méguin—researches which are well known, and which stand in no need of verification. But this fundamental distinction being once established, it may still be asked if, in spite of the non-identity of these two diseases, the diphtheria of birds may not be transmitted to man? According to Dr. Saint-Yves-Ménard, who for seventeen years has been director-general of the Jardin d'Acclimatation, the reply to this question must be in the negative. Indeed, the diphtheria of birds, extremely contagious amongst birds, has occurred most disastrously in certain years in the Jardin d'Acclimatation without a single case of transmission of the disease to man having been noticed, and this although many of the attendants having the care of the birds have been children.

A certain number of men carry on at the Central Markets the trade of "gavene" of pigeons, and this mode of feeding is conducted from mouth to mouth. The pigeons thus treated, especially those brought from Italy, often suffer from a disease known under the name of "chancre," which is nothing else than diphtheria. But it has never been observed that the "gavenes" have been attacked by the disease, and further, in spite of the reports which have been circulated on this subject, that any child has contracted diphtheria at the Jardin d'Acclimatation from the birds suffering from the disease. Joal.

McWeeny.—*Diphtheritic Micro-organisms.* Roy. Acad. of Med. in Ireland. "Med. Journ.," Aug. 23, 1890.

THE author showed a section of the epiglottis of a child who had died in the Mater Misericordiae Hospital from post-scarlative diphtheria. The patient had been admitted in the desquamation stage of scarlatina, suffering from a bad throat and albuminuria. After death the mucous

membrane of the upper part of the larynx was found coated with a thin layer of greenish-grey exudation.

The sections exhibited showed numerous micro-organisms in irregular masses, and also scattered through the almost structureless membranous exudation. Some of these were cocci, others bacilli; the cocci were scattered or in pairs, the bacilli were smaller in size than the Klebs-Löffler diphtheria bacillus, and were certainly not the same species, as, in addition to the difference in size, they also differed in the fact that the bacillus found by Dr. McWeeny stained readily by Gram's method, whereas the Klebs-Löffler organism was at once decolorized by iodide of potassium. Cornil and Babes also described organisms found in cases of pseudo-diphtheritic laryngitis after scarlatina, but they seemed to have found chiefly cocci.

He also showed a cover-glass preparation of a pure culture of the Klebs-Löffler diphtheria-bacillus showing the so-called "involution forms," and referred to the recent researches of Spronck into the subject, which had quite established its pathogenicity. A sterile filtrate of a pure culture would cause paralysis closely resembling the meta-diphtheritic in the human subject, and also albuminuria in rabbits.

R. Norris Wolfenden.

Wolf (Freiburg, Bav.).—*Treatment of Diphtheria.* "Therap. Monats.," heft 1890, No. 9.

THE author applies a powder consisting of 1 part of menthol and 20 parts of sugar.

Michael.

Cheatham (Louisville).—*The Local Treatment of Diphtheria and Scarlet Fever Throat.* "New York Med. Journ.," August 23, 1890.

THE author recommends peroxide of hydrogen, "15 volumes strength, alone or combined with bichloride of mercury 1 gr. to 3 j" as a thorough antiseptic, besides acting mechanically in getting rid of the membrane. It is of "wonderful effect" when used for the nose in 10 volume strength, and with bichloride, if used of $\frac{1}{2}$ gr. to 3 j strength, or in very young children still weaker. The hydrogen peroxide loses strength rapidly unless kept on ice and free from agitation. It causes no pain. It should never be used in a cavity unless there is free vent, a dangerous volume of gas being liberated. In the adult, a gargle of pure hydrogen peroxide, or half-and-half with listerine, "is the best application in scarlet fever and follicular amygdalitis" that the author knows.

R. Norris Wolfenden.

Babchinski.—*Diphtheria and Facial Erysipelas.* "Med. Record," Oct. 11, 1890.

THE Paris letter of September 26 quotes from the *Journal de la Santé* that Dr. Babchinski, a Russian physician, having had his son affected with grave diphtheria, erysipelas of the face suddenly supervened, which was followed by a remarkable change in the state of the patient—the fever fell, the false membranes disappeared, and the patient was cured in a short time.

Dr. Babchinski has observed in several other patients a similar improvement taking place after the disappearance of an attack of erysipelas

and in one of them the erysipelas had invaded the leg. These facts suggested to this physician the idea of inoculating a diphtheritic patient with blood taken from a patient affected with erysipelas.

Erysipelas declared itself, things passed as in the preceding case, and the child which was inoculated was cured. Subsequently he practised inoculations on other diphtheritic patients with cultures of microbes of erysipelas, cultivated on agar-agar, and constantly the manifestations of diphtheria disappeared. It may be added that, besides the inoculations, the patients had not been submitted to any other special medication whatever, and that in no case did erysipelas present any grave symptom.

Dr. Babchinski concludes his note with the following remarks: "If my observations and my experiments are confirmed, this treatment of diphtheria will be easy and certain, and this malady will no longer be dreaded."

R. Norris Wolfenden.

D'Heilly.—*Intubation of the Larynx in Croup.* "Archiv. of Pediatrics," Oct., 1890; "Archiv. für Kinderheilkunde."

THIS author reports thirteen cases of intubation for croup, the symptoms being such as usually require tracheotomy, namely, persistent dyspnoea, recession of the epigastrium, and commencing asphyxia. The youngest child was nineteen months old, the oldest four years. Two of the children were too near death to be benefited by any treatment: of the remaining eleven, only two were saved. In spite of this high mortality the author formed a favourable opinion as to the value of the procedure. It involves no loss of blood and no wound, it can be carried out easily, and serious and unexpected accidents are not likely to occur. An unsuccessful intubation can be repeated, and, if continually unsuccessful, tracheotomy can be performed. Neither shock nor rise of temperature attends the operation, and the air is not cold when it reaches the lung as it is when inspired through a tracheotomy tube.

On the other hand, the tube is frequently obstructed by false membrane, when it must be quickly removed, and as quickly reintroduced. American authors recommend that the patient be allowed to cough the tube out, but this was never observed in d'Heilly's cases. Another objection to intubation is the difficulty of swallowing that it produces, which of necessity interferes with nutrition. Especially is this difficulty experienced in the administration of liquid food, which may be inspired and cause pulmonary disease. Feeding through the nose by means of a catheter may obviate this difficulty, but is attended with others.

The author thus summarizes the conditions in which the method may be used:—

1. In very young children, in whom tracheotomy offers only slight chances of recovery, and in whom even a slight loss of blood would be harmful.
2. In mild cases of croup, which seem likely to continue as such, and for which tracheotomy is a severe remedy.
3. In very severe cases of toxic diphtheria in which the patient is already much weakened.

4. In cases of croup following measles, in which tracheotomy is never successful. Intubation in such cases offers a slight chance of success.

5. In all cases in which tracheotomy is impossible or dangerous.

R. Norris Wolfenden.

Lester, F. W.—*Intubation of the Larynx in Diphtheritic Croup.* "Med. Record," Aug. 30, 1890. Statistics from the Willard Parker Hospital, New York.

IN the first six months of 1889, twenty-three operations were performed, with nine recoveries = thirty-nine per cent. Average age three years five months : average age of those that died, two years eleven months : of those that recovered, four years two months. In fatal cases the average duration of life after intubation was four days. In recovery the average time during which the tube was in the larynx was six days.

In the second six months of 1889, seventeen operations were performed, with eight (= forty-seven per cent.) recoveries. Average age, three years eleven and a half months ; average age of those that died, two years nine months ; of those that recovered, five years four months. In fatal cases the average duration of life after intubation was three days sixteen hours. In the recoveries the average time the tube was in the larynx was five days twenty-one hours.

In the first six months of 1890, eighteen operations were performed, with seven (= thirty-nine per cent.) recoveries. Average age, two years seven months. Average age of those dying, two years ; of those recovering, three years five months. In fatal cases the average duration of life after intubation was two days thirteen hours. In those recovering, the average time the tube remained in the larynx was six days ten hours.

Jacobi's treatment, viz., iron and potash every half-hour, with bichloride of mercury (one-fortieth—one-sixtieth) every hour, was adhered to. General symptoms were treated *secundum artem*. Stimulants were used freely—there is greater danger of giving too little than too much.

R. Norris Wolfenden.

MOUTH, TONGUE, PHARYNX, &c.

Porai-Koshitz, Vladimir I. (Kharkov).—*Syphilitic Chancres of Lip, Cheek, and Fauces.* "Meditzina," Nos. 53, 55, and 56, 1890, p. 433.

THE writer records the following group of cases which came under his observation in the course of 1889 :—

1. *Chancre of the Upper Lip.*—A founder, aged twenty-eight, had first noticed a "crack" on his upper lip about Christmas, 1888. When examined on February 21, 1889, the part was found enormously swollen, greatly overlapping the lower lip, and hanging down in a curtain-like fashion. On its outer surface, nearer to the corresponding nostril, there was situated a circular, deep, crater-shaped ulcer, of the size of a shilling piece, its floor being of a tallow-like appearance, the edges claret-

red, clean, even, and forming a rather broad elevation, gradually slanting outwards and inwards. The base was considerably indurated, the infiltration involving the whole thickness of the lip, and extending over the nasal wing and a large area of the adjacent cheek. The red border of the lip was excoriated and covered with a thick scurf, the inner surface being of a cherry-red colour. The sub-mental, lateral, cervical (especially the right sided), supra-clavicular and axillary glands were enlarged. There were present papules over the body and other secondary manifestations. The mode of infection remained obscure. The disease was characterized with an exceedingly obstinate course (in spite of a most energetic treatment). The man transmitted the disease to his wife (*sub coitu*), who was subsequently delivered of a girl with intense congenital syphilis.

2. *Hard Chancre of the Lower Lip*.—A locksmith's apprentice, aged sixteen, was brought to the author with symptoms of three months' standing. Nearly the whole length of the inner surface of the lower lip was occupied with a dirty-looking, shallow, slightly indurated ulcer, the red border of the lip being lined with thin films of a yellowish colour, and the upper lip traversed with erosions and chinks. There were found, further, enlarged sub-mental, sub-maxillary, and cervical glands (especially on the left side), mucous papule on the right tonsil, and bright-red excoriations on the buccal mucous membrane. Under the influence of iodide of potassium and cauterizations, the chancre rapidly healed, and all other manifestations disappeared. Before this, however, the lad had succeeded in infecting his brother, aged nine, the primary lesion appearing somewhere in the oral cavity.

3. *Buccal Chancre*.—A Crown official, aged twenty-eight, sought the author's advice on account of "some rash" of one and a half month's standing, which proved to be papular syphilides. The genitals were sound, but on the mucous membrane of the right cheek, near the corner of the mouth, there was discovered a whitish, stellated, considerably indurated scar, surrounded with several small-sized erosions, the affected area being of a bright-red colour. The sub-maxillary glands of the right side were enormously swollen; the corresponding cervical and occipital glands were also considerably enlarged. After twenty-four mercurial inunctions all the symptoms disappeared.

4. *Faucial Chancre*.—A married merchant, aged thirty-five, father of two children, came to the writer with complaints of difficult swallowing, shooting pain about the right ear, noises in the head, and roseolar rash over the body. On examination, the right tonsil and faucial pillars were found to be of a dark cherry-red colour, the base of the anterior pillar and an adjacent portion of the tonsil being occupied with a whitish, shining, fairly smooth, somewhat indurated ulcer. The right peri-auricular glands were considerably enlarged. An inquiry elicited that in September, 1888, the patient's boy, aged three, had contracted a faucial chancre from a playmate of his, belonging to a syphilitic family. Shortly afterwards the boy transmitted the disease (similarly a faucial sore) to his little sister of one and a half years. In January, 1889, their mother, and in March, the father, became infected in the same way.

5. *Faucial Chancre*.—The case refers to a railway barrier-waiter, who had contracted syphilis from a mate of his (through promiscuously using spoons, etc.), the primary lesion being situated on the left tonsil and faucial pillars.

Valerius Iackson.

Fournier.—*Treatment of Tertiary Syphilis affecting the Tongue.* Union Médicale, Mar. 20, 1890.

THE general treatment is well known : iodide of potassium in gumma of the tongue ; mercury in sclerosis of the same. Local medication includes hygienic treatment, and the employment of topical applications. Local hygiene is indispensable. The patient should take the trouble to wash the mouth after each meal, so that alimentary matters may not collect in the furrows, where they form foci of fermentation. Irritating foods must not be taken, and culinary preparations should be chosen which require the least possible mastication, such as broths, soups, ices, hashes, &c. As first topical application the author recommends the use of soothing gargles, which are the best of all. It is not necessary to employ gargles of alum or those of mercury. The patient should use, so to say, true mouth baths, and renew them many times during the day. Atomised fluids are excellent ; powders can be used, dissolved in emollient liquids, in a solution of iodated iodide of potassium, 250 grammes of water containing two or three grammes of iodide of potassium and forty drops of tincture of iodine. The patient should use each day two or three such solutions, employing the atomised fluid on each occasion for ten or fifteen minutes. In sclerous glossitis, cauterization by means of the solid nitrate of silver is very useful when there are fissures or rhagades. An application should be made every four or five days without any other treatment, and acid nitrate of mercury should not be used, as it is too painful. In the gummatous form, cauterization with tincture of iodine is very useful when the slough has come away ; later, when the cavity tends to vegetate, the nitrate will favourably affect the process of reparation. On the contrary, cauterizations are absolutely useless on the surface of sclerous glossitis, over non-ulcerating gummata, or those in process of elimination, because they have no effect on the slough. In certain cases, fearing phagedena, gummata in the ulcerative stage have been cauterized with chromic acid, nitric acid, chloride of zinc, and even the actual cautery. In the opinion of the author, these irritating cauterizations would tend rather to aggravate the condition than to ameliorate it.

Joal.

Hallopean.—*On a Vegetating Form of Syphilis of the Tongue, and its Differential Diagnosis from Epithelioma.* Société de Dermatologie, June 12, 1890.

A PATIENT suffering from severe syphilis affecting the tongue presented, in spite of thorough and prolonged treatment, vegetative and indurative outgrowths, and at the same time enlargements of the adjacent glands. The author at first made the diagnosis of epithelioma. The results of investigation undertaken by M. Goupil, and the opinion expressed by M. Fournier, lead him to give up this diagnosis. Observation of cases shows (1) that syphilomata of the tongue can persist and continue to proliferate in spite of energetic treatment ; (2) that they may occur at the

same time both in the deeper portion of the organ and in the region immediately below the mucous membrane ; (3) that they may appear as indurative and vegetative tumours ; (4) that also they may assume the form of papillomatous outgrowths ; (5) that they may be accompanied with adenopathy. They have been described under the name "lingual sclerosis." This phraseology can without doubt be legitimately applied to the later stages of the disease ; that of "vegetative syphilomata" is, however, more correctly used for the actual lesions. *Joal.*

Roc.—*An Instrument for removing Glandular Hypertrophies from the Tongue.* (The American Laryngological Association Meetings, May 29 to 31, 1890.)
"Boston Med. and Surg. Journ., July 3, 1890."

THIS is a guillotine, made on the principle of a tonsillotome, with which it is apparently not very easy to work.

Holden showed a flexible wire hook, sharp on its inner side, which is useful for removing adenoids of the naso-pharynx.

Delavan showed loop-shaped curettes, and a sharp spoon to be used before the forceps in operating on adenoids in young adults. *B. J. Baron.*

Bidwell.—*The Treatment of Acute Tonsillitis.* "Medical Record," July 5, 1890.
LOCALLY, poultices are applied externally, and in severe cases inhalations of steam are used. *Internally*, the following prescription is said to be most valuable :—

R. Tinct. guaiaci, ammon., tinct. cinchonæ, co.	aa ʒj
Honey, strained.....	ʒiij
Sat. sol., potass. chlorat.	ʒxvj

One teaspoonful every thirty minutes to two hours, used as gargle, and swallowed.

Aconite or veratrum viride may be added to this formula, and it may also be used in lozenge form. The author is fortunate in having had only one case, *seen early*, go on to suppuration during seven years under the above treatment. He regards common acute tonsillitis as septic, and thus separates it from the rheumatic variety. *B. J. Baron.*

Hudson (Stockton, Cal.)—*A Rapid Cure for Tonsillitis.* "New York Med. Record," Sept., 1890.

THE author relates the history of cases successfully treated with morphia and tincture of veratrum viride. He found that the attack of tonsillitis was cut short within from eight to twelve hours after the treatment was commenced. *R. Norris Wolfenden.*

Lemaistre.—*Peritonsillitic Abscess.* Congrès de Limoges, August, 1890.

THESE abscesses end by spontaneous discharge, possibly between the tonsil and the pillars, possibly below and behind, or by forcing a passage in the anterior pillar across the pillar of the palato-glossus. But these abscesses are very painful ; they can also lead to certain very grave complications. Thus, the author thinks it best to open them as soon as the presence of pus is certain. When the collection of pus is formed, it produces between the fibres of the anterior pillar a separation which can be felt with the finger, and which is situated obliquely on this pillar about

half a centimètre from its internal edge. This separation is not visible, but is very easily felt by the tip of the finger, to which it gives the sensation of a button-hole; it is, further, a point, pressure on which causes acute pain. This is the point which should be incised; the collection of pus is certain to be found, and it occupies the upper portion of the tonsillar excavation. It is necessary to insert the bistoury somewhat deeply, and not to be content with a mere puncture. *Joal.*

Claiborne.—*A Hiatus in the Anterior Pillar of the Fauces, coupled with a Supernumerary Tonsil on the opposite side.* "New York Med. Journ.," Feb. 8, 1890.

THE supernumerary tonsil was one quarter to one-third of an inch above the insertion of the palato-pharyngeus muscle where it passes into the thyroid cartilage. On the other side the tonsillar tissue was in very small quantity. *B. J. Baron.*

Farlow.—*Eight Cases of Large Pulsating Arteries in the Posterior Wall of the Pharynx.* "Boston Med. and Surg. Journ.," July 3, 1890.

ALL in females except one.

B. J. Baron.

Bertels (Riga).—*A Case of Angina Herpetica.* "St. Petersburg Med. Woch.," 1890, No. 35.

ERUPTION of herpes on the palate, and pharynx, and trachea. As the patient was tuberculous, it was first believed that tuberculous ulcers were present, but on further observation it could be determined with certainty that it was herpes. The author concludes with remarks upon the differential diagnosis between phthisis, syphilis, and herpes. *Michael.*

Mettenheimer.—*Communications from the Anna Hospital in Schwerin-i-M. Retro-pharyngeal Abscess.* "Jahrb. für Kinderheilk.," bd. 30, heft 3.

A GIRL fourteen weeks old. The disease commenced with suppuration of the glands of the right angle of the lower jaw. Suddenly the voice became changed, attacks of suffocation followed. Abscess succeeded, reaching to the larynx. Incision was followed by cure. *Michael.*

Michael (Hamburg).—*Mandarins for the Introduction of Soft Rubber Tubes into the Bladder and Esophagus.* "Deutsch. Med. Woch.," Aug. 7, 1890.

THE mandarin consists of whalebone. On the handle is a prominence on which the Nelaton tube can be drawn. The mandarin with the tube combined is thus a solid mass which can easily be introduced, and can be applied with advantage for artificial feeding in cases of œsophageal stenosis. *Michael.*

NOSE AND NASO-PHARYNX.

Hopman.—*Answer to Lacourret. Contribution à l'Étude des Papillomes des Fosses Nasales.* "Revue de Lar.," No. 17. "Monats. für Ohrenheilk.," 1890, No. 7.

POLEMICAL articles.

Michael.

Woodward.—*Chronic Nasal Catarrh in Vermont.* "New York Med. Journ.," Feb. 15, 1890.

THIS is a good *résumé* of treatment of various nasal diseases. The cold snare is preferred for reduction of posterior hypertrophies; galvano-cautery for others. Cauterization ought not to be done in both nostrils on the same day. Septal deformities are removed by saw, trephine, or drill.

B. J. Baron.

Douglas.—*Chronic Nasal Catarrh.* "New York Med. Jour.," Feb. 15, 1890.

THE author pleads for a careful examination of all the circumstances in a case of this disease, which he considers very complex, and only curable if great care and patience are exercised.

B. J. Baron.

Bonne (Meustedten).—*Contribution to the Treatment of certain Chronic Nasal Diseases without application of Thermo-cautery.* "Therap. Monats.," heft 1890, Nos. 8, 9.

RECOMMENDATION of the application of glycerine of tannin. *Michael.*

Agnew.—*Nasal Catarrh and Bonnets.* "Weekly Med. Review," June 28, 1890.

THE writer says that he has never seen a case of nasal catarrh amongst women belonging to the Society of Friends, Dunkards, or Mennonites, which immunity he attributes to the peculiar shape of the bonnets worn.

B. J. Baron.

Parker (Charleston, S. C.)—*Anosmia from Tobacco Smoking.* "Medical News."

THE author relates the case of a patient who applied for treatment on account of dryness in the throat, difficulty of nasal respiration, and loss of the sense of smell. He was an inveterate smoker, and in the habit of blowing the smoke through the nostrils. He had pharyngitis and atrophic rhinitis. His sight was slightly impaired. Treatment consisted of entire abstinence from tobacco, application of electricity to the nasal mucous membrane, and the administration of one-thirtieth of a grain of strychnine three times a day. After a month, the sense of smell returned, and the condition steadily improved. The author points out that primarily the sense of smell is dependent upon the olfactory nerve, but that there are other secondary conditions, of which the chief are a free nasal passage and the presence of moisture. He further states that anosmia may be organic or functional, and that tobacco poison is capable of producing either or both of these conditions. When the secondary conditions are affected, the anosmia is functional; when the

olfactory nerve is itself affected, the anosmia is primary. In the latter case, the condition is similar to that present in the optic nerve in cases of tobacco amaurosis. The author concludes that tobacco smoking is injurious to the nasal and post-nasal fossæ, and that it impairs and sometimes destroys the sense of smell. *B. J. Baron.*

Bosworth.—*The Relations of Diseased Conditions in the Upper Air-Passages to so-called Nasal Reflexes.* "New York Medical Journal," July 5, 1890.

THE author does not believe that the nose is absolutely the direct cause of a number of diseases recorded as nasal reflexes, and, even when they are met with in association with nasal troubles, it is doubtful if they ought to be called reflexes.

Asthma, he thinks, is due to a vaso-motor paresis, causing vessels in the bronchial wall to dilate, and this in turn depends on a neurosis. A chronic inflammation of the nasal mucous membrane, attended with hyperæmia, as it often is, directly predisposes to an attack of asthma by influencing the circulation in the walls of the bronchi. Treatment of the nasal trouble is often successful by removing this predisposing cause. Hay fever is practically asthma, and must be treated in the same way.

He has never known a case of epilepsy cured by treating the nose, and has not seen a large enough number of cases of chorea to enable him to decide that it is due to nasal reflex disturbance. *B. J. Baron.*

Jacobi.—*Reflex Chorea.* New York Med. Journ., July 5, 1890.

THE author finds that some patients suffering from chorea are also the subjects of nasal catarrh, with thickening of the mucous membrane, impervious nostril, or ozæna; also pharyngeal catarrh and enlargement of the tonsils accompanied this condition. Where the head and shoulders are especially affected by the choreic movements there is often found irritation of the trigeminus nerve, or of the nose; the convulsion usually begins in the right hand, extends to the left, and then all over the body. Such cases are only cured if the nose and throat are treated. Mild treatment by douches and astringents often effects a cure. *B. J. Baron.*

Casselberry.—*The Treatment of Hysterical Aphonia, associated with Hypertrophic Rhinitis, by Cauterization of the Turbinated Bodies.* "Med. News," Feb. 22, 1890.

AFTER reviewing the question of reflex action from the nose, the author relates particulars of two cases in which artificial irritation applied to the nasal mucous membrane, in the shape of the galvano-cautery to hypertrophied turbinateds, corrected the functional laryngeal paresis. In one case granulations on the pharyngeal wall had been cauterized, but with no effect on the voice, and this the writer considers shows that the treatment of the nose was not merely a moral one, but explains the effect in the laryngeal muscles thus: The excitation passes to the medulla *vii*

the nasal nerve and the nasal branch of the anterior palatine ; it is then reflected to the pneumo-gastric and spinal accessory centres, and thence transmitted to the laryngeal muscles. B. J. Baron.

Kauffmann (Prague).—*On a Typical Form of Lateral Swelling of the Mucous Membrane of the External Nasal Wall.* "Monats. für Ohrenheilk.," 1, 2, 3, 4, 5, 6, 7, 8.

A VERY extensive description of a swelling of the mucous membrane near the entrance to the antrum of Highmore observed in many cases of ozona and empyema. Michael

Killian (Worms).—*Sagittal Fissures of the Posterior Ends of both Turbinateds.* "Monats. für Ohrenheilk.," 1890, No. 8.

OCCASIONALLY, on rhinoscopic examination, the author has found both upper turbinateds on both sides divided in two halves. Michael.

Asch.—*A New Operation for Deviation of the Nasal Septum.* "Boston Med. and Surg. Journ.," July 3, 1890. (This was discussed by the American Laryngological Association.)

THE operation is performed with a pair of scissors, one blade being blunt and pushed into the obstructed nostril, the other being sharp and pushed into the patent nostril. A crucial incision is then made at right angles to the point of greatest convexity. A gouge is then inserted into the obstructed nostril, and the segments are pushed into the opposite one, and the pressure continued until they are broken at their base, and the resiliency of the septum destroyed. The septum is then straightened by strong forceps, and held in position by a tin splint, and then the cavity is packed with an antiseptic dressing. Bony deviation is removed with the saw or electric trephine. The treatment lasts from three to six weeks.

Several of those present took part in the discussion that followed, and different methods of overcoming the resiliency of the septum, which, as the President remarked, is the object to be kept in view, were discussed.

Simanovsky, Prof. Nikolai P. (St. Petersburg).—*On Deviations of the Nasal Septum.* "Vratch," No. 37, 1890, p. 840.

HAVING examined 974 patients (603 men and 371 women) in the course of the twelvemonth, 1888-89, the author found that not more 49 (24 men, 25 women) of the number had a perfectly symmetrical or straight nasal septum. In the remainder its position presented some malformation. In 345 cases (185 men, 160 women) "the septum was generally irregular, with thickenings or spurs of a rather difficult description." In 191 cases (144 men, 47 women) it was sharply deflected to the right side ; in 188 (129 men, 59 women) to the left ; in 124 (61 men, 63 women) "it had an oblique position (generally deviating from the perpendicular line), while in 17 (9 men, 8 women) a sigmoid or zigzag deflection was present."

It may be seen, therefore, that a normal position of the septum was observed only in exceptional cases. "In other words," the author concludes, "as a rule, the nasal septum occupies a more or less irregular position—at least, such is the case as far as the St. Petersburg population is concerned."
Valerius Idelson.

Robertson (Newcastle).—*Symmetrical Webs in Nares with Post-nasal Occlusion by Adventitious Growth.* "Brit. Med. Journ.," Oct. 18, 1890.

M. A. L., aged forty-nine, married, of healthy appearance, and mother of a large family of healthy children, complained of utter inability to breathe through her nose, which is especially unbearable at night, and has become more acute during the last two years. She could previously breathe more or less through her nose, but since then it has become impossible. forcible expiration produces a whistling noise from the right naris. There is want of smell, constant tendency to hawk, etc.

The left naris was fairly normal. The floor was occupied by a rounded bluish body resembling a polypus, but which was found to be glairy nasal mucus. On removing this a web was discovered entirely filling up the posterior choana. At the lower margin of this, near the floor of the meatus, a small aperture was discovered, through which a probe could be introduced into the post-nasum. This aperture was below the collection of mucus before this was removed. In the other nostril a precisely similar web was found also with an aperture slightly larger, and situated higher up than in the case of its fellow. To the touch with the probe these webs seemed to be composed of resistant fibrous tissue, more yielding towards the centre.

The post-nasum was much contracted in size, with all its anatomical features effaced by an adventitious growth raised up into ridges and bars. The posterior nares and septum were invisible, as were also the openings of the Eustachian tubes. Hearing was normal. The openings in the webs were enlarged upwards and downwards with the galvano-cautery preliminary to the introduction of tubing, to effect, if possible, a permanent patency. The author has no doubt that this was an example of rhinoscleroma restricted in its development. Syphilis or lupus was out of the question. The process in this case was of long standing, for from youth upwards she had complained of nasal obstruction. The appearance of the post-nasum precluded the supposition of disease of the pharyngeal tonsil.

R. Norris Wolfenden.

Ziem (Danzig).—*Illumination of the Antrum of Highmore.* "Berlin Klin. Woch.," 1890, No. 36.

THE author remarks that an empyema of the antrum of Highmore can only be recognised by illumination, if there is so much pus that the antrum is filled, but if there is only little pus it is necessary to perform a probatory opening and irrigation.
Michael.

Bosworth.—*Some Practical Suggestions in regard to Antrum Disease.* "Boston Med. and Surg. Journ.," June 26, 1890.

THE disease is usually due to a morbid condition of the nasal chambers,

of which nasal polypus is the most frequent. Acute rhinitis is often found along with acute antral disease, but it is not certain that chronic rhinitis will give rise to it. Of eighteen cases, eleven were males—seven females. The ages of the males ranged from twenty-eight to sixty-four years, the average being forty-seven; of the females, twenty-one to fifty-five, the average being thirty-nine years. In six cases nasal polypi caused it; in five there was concomitant acute rhinitis, and in seven hypertrophic rhinitis was present. Carious teeth were not prominent as a cause in any case. The principal symptom was a discharge of laudable pus from one or other of the nasal cavities, usually anteriorly, but in some cases it got back into the naso-pharynx, and thus simulated naso-pharyngeal catarrh. A dull aching pain along the branches of the facial nerve was also complained of in most cases. The pus, which was bright yellow, made its way into the nose from beneath the middle turbinated body, and came from one nostril only; and this Bosworth regards as the most important symptom of the disease, since he says that no disease of the nose gives rise to the unilateral discharge of *healthy* pus, except a disease of the accessory sinuses. The difficulty is to determine whether it comes from the antral, sphenoidal, ethmoidal or frontal sinuses.

Percussion on the forefinger placed over the infra-orbital foramen is better than over the malar bone, and if the sound be less resonant it indicates antral disease.

The operation through the alveolus, and the insertion of Bordenave's tube, with frequent cleansing, is the best that can be done. *B. J. Baron.*

Schutz (Mannheim).—*Contribution to the knowledge of Empyema of the Antrum of Highmore.* "Monats. für Ohrenheilk.," 1890. Nos. 7, 8, 9.

A PATIENT, twenty-one years old, had a carious tooth, which was extracted by a dentist. The apex of the root had an appendix filled with pus. Some hours later swelling of the left side of the face ensued and supra-orbital neuralgia. Examination showed a fistula in the alveolus of the extracted tooth. Through the fistula a drain was introduced, and by irrigation some pus was removed through the left nasal meatus. The irrigations were continued and ended in cure in six weeks. In opposition to those authors who state that nasal suppuration is very often the cause of empyema, the author remarks, with good reason, that the nasal mucous membrane possesses a great resistance to purulent infection, because, moreover, if an empyema of the antrum of Highmore exists for years, the discharge of pus from the nose ceases the moment when the empyema is operated upon.

Michael.

Ziem (Danzig).—*The Examination of Nasal Suppuration, and Remarks on the so-called Tornwaldt's Disease.* "Monats. für Ohrenheilk.," July, 1890.

By injections with Mayer's syringe a great deal of pus can often be removed, and in such cases in which no pus can be found in the nose by other means. By this method the author was able to find the cause of discharge of pus in the nose in many cases which had been supposed by others to be bursitis pharyngealis, and he believes that bursitis is much more rare than is stated to be the case by Tornwaldt.

Michael.

Chénieux.—*Naso-pharyngeal Polypus—Preliminary Tracheotomy.* Congrès de Limoges, August, 1890.

THE patient was seventeen years old. The polypus had existed five years, and had successively invaded the left nostril and maxillary sinus, and the right nostril; severe losses of blood occurred and there was exophthalmus. Operation was urgently required. Knowing that several patients had succumbed in the course of surgical interference in consequence of hæmorrhage, by the passage of blood into the air tracts, and, possibly, also in consequence of the severe pain, chloroform not being safely employed, the author thought it expedient to perform preliminary tracheotomy. But hardly had the inhalation of chloroform commenced before tracheotomy, in the ordinary manner, than the patient ceased to breathe for ten minutes. The canula having been inserted, artificial respiration was resorted to, and the patient was with difficulty restored. Five days later the operation was performed through the naso-maxillary passage; and the author was able to have chloroform administered without danger, and to extirpate without fear of accident the polypus by the aid of thermocautery and of the scalpel.

Joul.

LARYNX.

Alpiger (Wien).—*Anatomical Study of the relations of the Vagus and Sympathetic Branches to one another in the Region of the Larynx—Contribution to the Explanation of Shock following Extirpations of the Larynx.* "Langenbech's Archiv.," bd. 40, heft 4.

LAST year Stoerk declared that death by shock following upon extirpation of the larynx is caused by disturbances of the innervation of the heart. By section of the ramus cardiacus the regulation of the heart is interrupted and paralysis cordis follows. For the clearing up of these points the author has examined nineteen cadavers. He describes the appearances met with in individual cases, and concludes—(1) Anastomosis of the laryngeus superior with the cardiacus superior n. sympathici is very often observed. Sometimes only an unilateral anastomosis is found, and in such cases one cardiacus superior n. sympathici failed. (2) The ramus cardiacus superior n. sympathici is relatively often missing, especially on the right side. It is probable that the ramus anastomaticus has depressor fibres, and that if these fibres are cut, accelerated action of the heart is the consequence. The paralysis cannot be explained by the result of these anatomical researches.

Michael.

Clemens (Frankfurt-a-M.). *Nervous Hysterical Aphonia cured by Galvanization of the Muscular Nerves of the Accessorius.* "Therap. Monats," heft 1890, No. 8.

THE author has cured a case of hysterical aphonia by faradization of the accessorius Willisii.

Michael.

474 *The Journal of Laryngology and Rhinology.*

Richards.—*Abscess of the Larynx.* "The American Journal of the Medical Sciences," May, 1890.

THIS is a very good *résumé* of what has been published respecting these cases, and the diagnosis between abscess and croup, laryngeal œdema, perichondritis and cysts, and retro-pharyngeal abscess and new growths is discussed. Treatment consists in early incision, followed, if necessary, by soothing or stimulating applications by means of the brush.

B. J. Baron.

Rosenberg (Berlin). *Laryngeal Œdema following the use of Iodide of Potassium.* "Deutsch. Med. Woch.," 1890, No. 37.

A GIRL, twenty-one years old, had been hoarse for half a year. Iodide of potassium in a solution of two and a half per cent. was prescribed. Having taken two spoonful of this solution, the patient became dyspnoic during the night. The next morning she also was feverish and had headache. The laryngoscope showed great swelling of the sub-glottic mucous membrane. A cure resulted in a few days by treatment with ice. The treatment with iodine should always be commenced with small doses.

Michael.

McDonagh.—*Obstructive Laryngitis—Tracheotomy—Continuance of the use of the Tracheotomy Tube a Necessity—Intubation—Recovery.* "The Canadian Practitioner," Apr. 16, 1890.

THIS was a case of a child who had some inflammation in the larynx, and who became choked whilst eating raisins. Tracheotomy was found to be necessary to relieve the dyspnoea, and it was only after the introduction of an intubation tube that the canula could be dispensed with.

B. J. Baron.

Mayer (New York).—*Two Cases of Stenosis of the Larynx—Rapid Tracheotomy—Pulsation—Recovery.* "Medical Record," Sept., 1890.

A MAN, aged twenty-five, came to the hospital suffering intense dyspnoea. There was a history of syphilis. The pharynx was extensively cicatrized. A mere chink represented the rima glottidis. Tracheotomy was advised without anæsthetic, but the patient refused operation unless an anæsthetic was administered. He was anæsthetized, and the operation commenced, but before it was half completed respiration ceased, and he became deeply cyanosed. The trachea was firmly seized, and the operation completed with one incision. Respiration was immediately re-established. Large doses of iodide of potassium were given. Under this treatment the laryngeal induration quickly subsided, and at the end of eight weeks the use of the tube was discontinued, and the wound healed. This case occurred in 1884, before the employment of cocaine as a local anæsthetic, and thus, as the author says, there was no choice in the manner of operating, as immediate tracheotomy was imperative.

A second case of stenosis of the larynx was that of a male, aged thirty-eight, who attended in July, 1890. For the previous six months he had suffered from cough, noisy inspiration and difficulty of breathing at night. Later, this difficulty became pronounced also by day. The dyspnoea had become much worse during the two weeks preceding attendance. There was a history of syphilis. The larynx was in a condition of sub-

acute inflammation; the vocal cords were pink in colour, and did not move in phonation; the rima glottidis was represented by a chink about one-twelfth of an inch in width. Under cocaine anæsthesia, a small-sized Schrötter's tube was introduced between the ventricular bands, and withdrawn. The stenosis was found to be due to a firm crescentic band stretching across the trachea, immediately below the vocal cords, and preventing the separation of the ventricular bands. The introduction of the tube had separated the cords, and torn the membrane. Tubes of larger dimensions were successfully introduced at intervals of two days. This was continued for three weeks. Afterwards the largest tube was introduced weekly. The first introduction of the tube relieved him greatly, and after three weeks there was no evidence of dyspnœa, and he returned to his work. He was treated with large doses of iodide of potassium.

The author points out that in such cases as the one he describes dilatation should be gradual, and that an advantage of the treatment is that deglutition is not interfered with.

B. J. Baron.

Lincoln.—*Report of the Excision of a Laryngeal Tumour which returned twenty-two years after removal by Laryngotomy.* "New York Med. Journ.," Feb. 22, 1890.

THIS large growth was removed from a young lady's larynx by Elsberg, and it was thought to be either an epithelioma or sarcoma. It recurred, and was then removed thoroughly by Elsberg by laryngotomy. For twenty-one years nothing was felt of any growth, and then the patient caused her throat to be examined, and a growth the size of a "large kernel of corn" was seen growing from the posterior third of the right vocal cord. It was completely removed, and was found to be a papillema.

B. J. Baron.

Baldwin.—*Case of Papilloma of the Larynx cured by Intubation.* "Med. Record," Mar. 8, 1890.

THIS is a novel use of intubation, but the author appears to have greatly removed by the pressure of the tube a large papillomatous growth from the larynx of a child, aged eight years; also he found that tuberculous growths in phthisis laryngea can be decreased in size in a similar way.

B. J. Baron.

Cox.—*Report of a Case of Papilloma of the Vocal Cord, with some Considerations upon Intra-Laryngeal Growths and their Removal.* "New York Med. Journ.," Apr. 12, 1890.

THIS is a report of the removal of a papilloma from the right vocal cord, near the anterior commissure, with Mackenzie's forceps. Chromic acid was applied to the base of the growth several times, and the cords were painted with a solution of nitrate of silver, 40 grs. to 5j, with complete success so far as the recurrence is concerned, but voice was not completely restored owing to the thickened condition of the cords. Some useful practical hints on the treatment of laryngeal growths are also given.

B. J. Baron.

Bergengrün.—*A Case of Pachydermus Laryngis.* Gesellschaft Prakt. Aerzte in Riga. Meeting, April 18, 1890.

THE patient, fifty-four years of age, was hoarse for two years, but afterwards his voice became normal. On both processus vocales were yellow prominences of the size of half a pea. The mucous membrane at their circumference was red. The right prominence had a cleft, in which the left one could lie, so that the closure of the glottis was restored.

Michael.

Bergengrün.—*Verruca dura Laryngis.* "Virchow's Archiv," Bd. 118, Heft 3. DESCRIPTION of a rare case of true warty growth of the larynx. In the regio arytenoidea were some white prominences of the size of a pea, of hard consistence, broad-based, and easily removable. There was normal mobility of the larynx. The mucous membrane was in a state of chronic catarrh. The microscopical examination shewed the condition to be a true verruca.

Michael.

Smith.—*Lupus of the Larynx.* Roy. Acad. of Med. in Ireland. New York Med. Journ., Aug. 9, 1890.

THE author exhibited the larynx of a man who had died of pneumo-thorax consequent upon extensive tubercular disease of the lungs. There was also amyloid degeneration of the liver, spleen, kidneys, and intestines. Fourteen years previously Dr. Bennett had successfully performed the Indian operation for an artificial nose, owing to the destruction effected by old-standing lupus of the face. At the *post-mortem* examination both lungs were found riddled with vomice. Tubercle bacilli were found in their contents. The larynx was involved to a considerable extent. The free edge of the epiglottis had nearly disappeared; what remained was thickened and irregular. There was no ulceration of the cords, true or false. Between the arytenoids were several pyramidal outgrowths, projecting above and below the rima glottidis. The case illustrated the supervention of tubercular phthisis upon cutaneous lupus, and was compared with Leloir's case of lupus of the face, tongue, and larynx, published in the *International Atlas of Rare Skin Diseases.* R. Norris Wolfenden.

Scheunmann (Berlin).—*Iyoktanin in Tuberculous Ulceration of the Larynx and Nose.* "Berlin Klin. Woch.," 1890, No. 33.

THE author applies the new medicament by melting it on a probe; with this he brushes the ulcers, which are previously rendered anæsthetic by cocaine. After one or two applications the ulcer begins to heal. He has thus cured some cases of laryngeal phthisis, and also tuberculous ulcers of the nose.

Michael

Simanovsky, Prof. Nikolai P. (St. Petersburg).—*Styron and Peruvian Balsam in Laryngeal Tuberculosis.* "Vratch," No. 37, 1890, p. 841.

THE author states that, at his suggestion, Dr. A. M. Gorodetzky undertook in his clinic a series of experiments with the object of testing the therapeutic value of styron and Peruvian balsam in laryngeal phthisis. Up to the present the following effects have been noticed:—"The application of either of the drugs decidedly produces a revivifying

"action on atonic tubercular ulcers. Inflammatory œdema of tissues considerably subsides, tension of the mucous membrane decreases, and, what is the most important, the amount of viscid and frothy muco-purulent discharge, covering the tumefied tissues, distinctly lessens. As may be expected, such decrease of swelling and irritant discharge markedly diminishes the irritability of affected parts, in consequence of which the agonizing sensation of dryness, so frequently experienced by such patients in spite of the said profuse secretion, is alleviated to a considerable extent." The author, however, has never yet observed a complete healing of the ulcers. *Valerius Idelson.*

Hinrichs (Berlin).—*Removal of a Needle from the Trachea per vias naturales.*
"Deutsch. Med. Woch.," 1890, No. 37.

THE patient, nineteen years old, had inspired a needle with a feather attached. He could hold the feather, but it was not possible to extract the needle. Dr. Schorler saw the needle impacted near the bifurcation. On that day it was impossible to extract it, but the following day Dr. Schorler was able to move it with a probe, so that it could be extracted by the feather. *Michael.*

Keferstein (Alt-Dobörn).—*Case of Foreign Bodies in the Air Passages.*

A PATIENT, fifty-eight years old, suddenly had the feeling of a foreign body in the chest after having eaten soup. Since this time she often had paroxysms of coughing and a great pain about the sternum. Some weeks later the foreign body was coughed out. It was a piece of bone of the size of 8 by 5 by 4 mm. *Michael.*

NECK, &c.

Corning, Leonard.—*On the Nature and Treatment of Exophthalmic Goitre.*
"New York Med. Journ." Sept. 13, 1890.

THE author briefly reviews the symptoms, causes, and pathology, and deals at length with the treatment. The phenomenal disturbance of the circulation, and the profound constitutional impairment, are factors which stand out. He recommends placing the patient in a warm bath for three-quarters of an hour, or more, at least once a day. The legs are to be bandaged with elastic straps if the derivative action of the bath is insufficient; they are adjusted so as to interfere more or less with the venous, and not with the arterial circulation. The thyroid is treated with a special preparation of styptic collodion, along with a carefully adjusted elastic truss. The eyes may be bandaged during immersion. The tumour is daily galvanized, using an electrode of potter's clay, moistened with iodine, and large enough to envelop the whole thyroid. This is connected with the positive pole, the negative pole of the battery being placed upon the neck. The applications last from ten to twenty-five

minutes, twice a day at least. Aconitine is of great benefit when the pulse is rapid; where not rapid, but lacking in fulness, digitalis, sparteine and strophanthus are indicated. Dieting is all important, and a judicious but not exclusive milk diet is to be preferred. Alcohol is absolutely contra-indicated in most cases of Graves' disease. Iron and arsenic may be given with advantage. All emotions and excitement must be guarded against. Prolonged cerebral rest is important. The subjection of these patients to the "Weir-Mitchell treatment" is a great cruelty, and he has seen cases that have sustained great injury in this manner. The patients should be kept asleep for as long as possible when in bed, and may be got to sleep for ten to fourteen hours out of the twenty-four by a little dexterity, and without resort to drugs. *R. Norris Wolfenden.*

Rydygier (Krattau).—*On the Results of Ligature of the Arteries in Cases of Struma.* "Archiv. für Klin. Chirurgie," bd. 40, heft 4.

THE author has collected eleven cases from the literature of the subject, and twenty-one from his own practice, in order to study the effect of the treatment. He concludes that the ligature of all four arteries gives good results without producing the symptoms of cachexia strumipriva. In none of the cases was any gangrenous destruction of the gland observed. The unilateral ligature, or the ligature of only the two upper or the two lower arteries is without effect, because in a short time a collateral circulation is developed. The operation should be performed in cases of struma parenchymatosa and gelatinosa, but is without effect in cases of struma cystica and cicatricial struma. *Michael.*

Barton.—*Lympho-Sarcoma of the Neck.* Royal Acad. of Med. in Ireland. "New York Med. Journ.," Aug. 9, 1890.

A TUMOUR, occupying the whole of the right side of the neck, had been growing for four years, the first three of which it was only of the size of a filbert-nut. It had then suddenly commenced to grow, and attained its present size in three months. Fluctuation was elicited in one part. Edges undefined. Diagnosis, a lympho-sarcoma, which had burst through the capsule and had become diffused through all the structures of the neck. The patient, a strong, robust countryman, had become subject to fits of a remarkable kind. He had suddenly become pale, fell over if sitting up, his pulse disappeared, and he had lost consciousness for about a minute. He had then recovered: his colour and pulse had returned, and he sat up. An operation was performed, to see how far the growth could be removed, in the course of which the common carotid artery of the right side of the neck, lying behind the tumour and compressed by it, was found to be completely occluded. At its bifurcation a rent was torn in it, but no blood escaped: it was firmly occluded lower down. The speaker drew attention to three pathological facts of interest: (1) the growth of the tumour; (2) the fits from which the patient suffered, which may have been produced by the compression of the pneumo-gastric nerve by the tumour; (3) the occlusion of the carotid artery by the pressure of the growth upon it and around it.

R. Norris Wolfenden.

THE TENTH INTERNATIONAL MEDICAL CONGRESS, BERLIN.

4th to 9th August, 1890.

Report by Dr. MICHAEL (*Hamburg*).

(Continued from page 415.)

SEIFFERT (Würzburg). *On Rhinitis Atrophicans*. — In forty-nine cases of rhinitis atrophicans simplex the author observed only atrophy of the inferior turbinateds, whilst the middle turbinateds were hypertrophic. There was no fetor or formation of crusts. The same process existed in the pharynx as in the nose. In four cases the author examined pieces of the middle turbinateds, and found cylindrical or cuboidal epithelial-celled infiltration of the uppermost regions of the mucous membrane, and in the deeper parts hypertrophy of the fibrous tissue. In forty-five cases of the foetid form the lower turbinateds were also atrophic, and the middle turbinateds thickened. Tuberculosis or syphilis were rare. In slighter cases the epithelium was cylindrical—sometimes cuboidal—and in severe cases there was only plaster-epithelium, infiltration of the glands or atrophy of these latter. The author believes, in consequence of his microscopical examinations, that the slight and the severer forms are chronic catarrhs with degenerative alterations of the mucous membranes. The fetor is the consequence of putrescence of the secretions.

BERLINER (Breslau). *Ozæna*.—Hypertrophy of the middle turbinateds is the cause of the disease; it is, therefore, necessary to destroy the hypertrophy of this region, especially to prevent its apposition to the septum. If this operation is performed before the beginning of the atrophic stage the disease can be cured.

ROSENFELD (Stuttgart). *On Ozæna*.—The author said that the disease is often hereditary, and exhibited a genealogical scheme of a family which proves this contention. A woman with ozæna has seven children, and twelve grandchildren. Ten of them have ozæna, four atrophic rhinitis simplex, and only five have healthy noses.

MASSEI (Naples) made some remarks upon the bacterial nature of the disease.

VALENTIN (Bern) remarked that ozæna is often found combined with struma.

SECOND MEETING.

Deviations and Spurs of the Septum Narcium.

Discussion introduced by MOURE (Bordeaux) and HARTMANN (Berlin).

MOURE spoke of the indications for operative treatment of the septum. These are (1) stenoses; (2) affections of hearing; (3) reflex neuroses. Good results can be obtained from the application of the

chisel, forceps, and saw, but the methods are not easy to perform, and make a longer after-treatment necessary. The author has generally applied electrolysis, and believes this to be the best method. He described the *technique* of electrolysis, first recommended for this purpose by Miot.

HARTMANN treated extensively of the etiology and development of the different malformations of the septum produced by disturbances in fetal development, or by traumatic effects. He showed a great many very instructive specimens. He differentiates ridges, flexions, and spinous neoplasms. The flexions usually occur at the junction of the vomer with the cartilago-quadrangularis and the lamina perpendicularis of the ethmoid bone. The spurs and spines occur mostly at the junctions of bones and cartilages. For treatment of these conditions the author uses the galvano-cautery chiefly.

GOUGUENHEIM (Paris). *Abscesses of the Septum, with consecutive Malformation of the Nose*.—In three cases of acute abscess of the septum observed by the author the origin of the affection was a traumatism. From the absence of tubercle bacilli and the presence of streptococci he could exclude any tubercular condition. The abscess was cured by simple incision; but after the cure a malformation of the nose followed, which was produced by luxation of the septum.

JOEPLITZ (New York). *Etiology of Perforations of the Septum*.—After a review of the well-known causes of perforations, such as syphilis, tuberculosis, diphtheria, and lepra, the author relates that as physician to a manufactory of copper-arsenic-green he has observed a perforation of the septum in sixty-one per cent. of the workmen. Without doubt the affection must be regarded as the toxic result of arseniate of copper. Perforations from this cause have not yet been described, but literature contains many cases of toxic perforations produced by chromic acid.

LOEWE (Berlin). *Exostoses of the Septum*.—Exostoses of the septum are regarded by the author as hypertrophies of Jacobson's organ. This organ is embedded between the lamella of the septum, and is often affected by pathological degeneration. It thus frequently causes hypertrophy of the neighbouring mucous membrane, and this causes hypertrophic degeneration of the bone. In the discussion of the paper Messrs. Patzek, Massei, Ripacek, Schmidthuysen, Herzfeld, Rosenfeld, Sandmann, and Onody, took part.

Diagnosis and Treatment of Diseases of the Accessory Cavities of the Nose, introduced by MCBRIDE (Edinburgh) and SCHECH (München).

MCBRIDE separates those diseases in which the osseous walls of the cavities are distended, or perforated, from those where this is not the case. Of the first class are tumours, cysts, and empyemata of such extent that they cause distention or perforation; and of the second category, cases of less extent, e.g., carious processes and free secretion of fluid masses.

Empyemata of the antrum of Highmore give the following symp-

toms : unilateral secretion of pus, sometimes without odour, sometimes of bad odour, coming from the nose or naso-pharynx, or headache and tooth-ache ; on inclining the head to the healthy side the pus is removed in larger masses. Congestion and swelling of the affected side exist. The diagnosis can also be made by illumination. The usual cause of empyema is caries of the teeth, sometimes disease of the nose. The treatment consists in opening the antrum through an alveolus after extraction of the teeth, and following this with antiseptic irrigation.

The symptoms of empyema of the frontal sinus are not so striking. Pus in the middle nasal meatus, which is not increased by flexion of the head. Irrigations and nasal douches are recommended, but are not without danger to the ear. Operations must sometimes be performed. Empyema of the ethmoid cells and the cuneiform bone are not easily diagnosed, and therefore only few cases are described.

SCHECH (München). The diseases of the accessory cavities of the nose are more frequent than was imagined in the ante-rhinoscopic times. Sometimes several sinuses are affected at the same time. The disease can arise from closure of the entrance to the sinus by the continuation of inflammatory processes existing in the neighbourhood, or from traumatic causes. The antrum of Highmore is usually affected by the infection of carious teeth ; in rare cases by disease of the nose. Concerning the symptoms, the author agrees with the conclusions of McBride. The effects of illumination are not always sufficiently reliable. The diagnosis can be made by probe injection and probe puncture. For the latter operation the author prefers the alveolus of an extracted tooth. The diagnosis can sometimes only be made by prolonged observation.

As to treatment : the causes of the diseases must first be recognised and cured, such as caries of the teeth and neoplasms of the nose. No methods of local treatment employed up to now possess infallible results. The opening into the sinus is the best, especially in the case of the antrum of Highmore. If the teeth are carious, the place for the operation is the alveolus ; if the disease is not caused by the teeth, the antrum can be entered from the nose, or through the fossa canina. Through the artificial opening the cavity can be treated by irrigation with antiseptic medicaments. The newly recommended dry treatment with powders has often a surprising effect. The ethmoidal cells can easily be opened by the introduction of a strong probe in the middle meatus. The frontal sinus must only be opened if there are present any grave symptoms. The cuneiform sinus can be opened by Schaeffer's probe. If the cavities are filled with neoplasms these must be destroyed.

VOHSEN (Frankfurt-a-M.). *Illumination of the Antrum of Highmore and the Sinus Frontalis in the Diagnosis of their Diseases and Operative Treatment.*—The author showed in a dark chamber the apparatus for illumination of the frontal sinus and antrum of Highmore. His experiments were very instructive, and showed the value of the method at its best. If the antrum of Highmore is healthy, the pupil is seen in red lights, if the cavity is filled with pus it remains obscure. The method is of great value in diseases of the frontal sinus, because the symptoms of

this disease are not so striking. In judging the results the variable character of the contents of the cavity and the thickness of the bone must be taken into account. The author concludes with a review of forty-six cases collected from literature. Drs. Heryng, Hartmann, Flatau, Freudenthal, Walter, and Neumann took part in the discussion.

HYLMANN, P. (Berlin), exhibited his most interesting series of specimens of diseased and malformed Highmore's cavities.

THIRD MEETING.

Diagnosis and Therapeutics of Cancer of the Larynx.

Introduced by BUTLIN (London) and GÖTSTEIN (Breslau).

BUTLIN accepts the division proposed by Krishaber into extrinsic and intrinsic cancers. Extrinsic are those neoplasms which are situated on the arytenoid cartilages, ary-epiglottic folds, epiglottis, and in the sinus pyriformis. Intrinsic are those which are situated on the true and false ligaments, ventricles, and in the sub-glottic space. This division is of great practical value. Whilst the extrinsic forms have a rapid and bad progress, the intrinsic growths are limited for a longer period to the interior of the larynx, and have no great tendency to affect the lymphatic glands. The operation of total or partial extirpation of the larynx must only be practised in cases of intrinsic carcinoma, for only in such cases are successes observed. In one hundred and two collected cases of intrinsic cancers are twenty-eight cases of thyrotomy, twenty-three of partial, fifty-one of total extirpation, with three, seven, and sixteen deaths respectively from shock, septicæmia, or *Schluck-pneumonie*. The author regards those cases as cured which last longer than three years without recurrence. The total results, then, so far as cured cases are concerned, are that fifteen patients were alive and free from disease, or died of some other disease than cancer, at periods of from three to twenty years after the last operation. Of the results of operations for recurrent disease, but little that is good can be said. The operations proved fatal in more than one of the cases, and not one of the cases and not one of the patients received decided benefit. With regard to the choice of operation in individual cases, the smallest operation, consistent with the widest excision of the disease and the removal of a wide area of the surrounding tissues, should be performed. Intra-laryngeal operations, in spite of the good results obtained by B. Frankel, can only be performed in few cases, because usually the cancer is more extensive than can be seen with the laryngoscope.

GÖTSTEIN. *Concerning the Laryngoscopic Diagnosis of Cancer.*—Cases very often occur which are so characteristic that nobody can doubt the existence of cancer. This is especially so when the appearance is that of an irregularly-formed warty growth situated on an infiltrated base. An intimate connection of the neoplasm with the mucous membrane is typical of carcinoma. But sometimes infiltration is absent, or the neoplasm is lost in the infiltration. Malignant tumours on a normal coloured ground are so rare that the author has never seen such a case. When they occur they may cause very great difficulty in the diagnosis.

The diminished mobility of a vocal cord, proclaimed as characteristic by Semon, is not at all pathognostic. It may be present in infiltration from other causes, and may be absent in cases of cancer. The diagnosis can often only be made *per exclusionem*. The result of microscopical examination is only of value if it gives positive results. The concomitant, subjective, and objective symptoms—such as age, enlargement of the glands, pain, hoarseness—are often fallacious. The author resumes that the diagnosis of cancer is often of the greatest difficulty; as to treatment he agrees with Butlin.

BOSWORTH (New York). *A Study of Malignant Disease of the Upper Air Tract*.—The author has collected as completely as possible all cases of malignant neoplasms recorded in literature, excluding laryngeal cancers, and treats of the frequency, the pathological symptoms, prognosis and therapeutics of the subject. Of three hundred and thirty-four of the published cases, two hundred and four were cancers, with five cures, one hundred and thirty sarcomas, with thirty cures. The only treatment is the operation. As to the sarcomata originating in the nasal fossæ he recommends the application of the cold wire. Cancers of the tonsils, and of the upper part of the œsophagus, should, if possible, be removed by radical operation.

NEUMANN (Budapesth). *Contribution to the Origin of Laryngeal Cancers*.—In two cases the author observed patients showing an infiltration of the vocal cords, which structures also presented an irregular surface. In the same manner the whole laryngeal mucous membrane was diseased. The author believed that these were examples of laryngitis hyperplastica. The further progress and the microscopical examination showed them, however, to be carcinoma. The author adds some remarks upon the transformation of benign into malignant tumours.

PIENAZEK (Krakau). *On Laryngo-Fissure*.—The author has performed sixteen operations, and has assisted in ten other operations. He has always operated with the hanging head. He divides the larynx from the inner to the outer side, so as to avoid injury to the vocal cords. To avoid cough he brushes the larynx with cocaine of twenty per cent. strength. The indications for the operation are: (1) hyperplasias of the mucous membrane; (2) inoperable stenosing papillomas; (3) carcinomata; (4) tuberculosis laryngis with relative healthy lungs; (5) cicatrices; (6) foreign bodies which cannot be removed by other means; (7) fractures; (8) opening of abscesses; (9) the sequelæ of perichondritis.

DISCUSSION ON THESE PAPERS.

KRAUSE mentioned the difficulties of diagnosis met with in some cases of cancer. The whitish-grey vegetations are not characteristic in all cases, if probable microscopical examination should be performed. He related a case of the cure of cancer by the extirpation of the diseased vocal cord.

SEMON. With small tumours great hoarseness is not always observed; it depends upon the infiltration of the tissue. This also causes the disturbances of mobility. Concerning the indications for operation he agreed with Butlin.

SCHEINMANN recommended his tube forceps for sub-glottic tumours. The instrument allows a good view of the region during operation.

MASSEI urged the value of laryngoscopic examination.

BRONGIAST believed the prognosis to be worst if the cancer is situated on the posterior laryngeal wall. In these cases only total extirpation is possible.

B. FRANKEL recommended, if possible, the intra-laryngeal method.

HAHN referred to twenty-six operations.

BLOOME had observed the transformation of leukoplakia into cancer.

ONODY related a case of combination of laryngeal cancer with argyria.

STOERK related a case of cancer free from recurrence three years after operation. On the 1st July, 1887, the diseased arytenoid cartilage was removed by Gersung. The patient is now in good health, but has a hoarse voice.

CHIARI urged the importance of the differential diagnosis, and related one case where the origin of the carcinoma was in a ten-years-old hypertrophy of the vocal band, and another of the transformation of papilloma into cancer.

FOURTH MEETING.

HERYNG (Warsaw). *On Benign Pharyngeal Ulcers*.—The author has observed in some cases the existence of superficial ulcers upon the palatine arches combined with fever. The ulcers had sharp walls, and a whitish-grey surface, the neighbouring regions being red. A cure was effected in a few days.

GLITSMAN (New York) showed *Tupelo Dilators for the Nose*.

CHIARI. *On Pachydermia Laryngis Diffusa, especially of the Inter-Arytenoid Fold*.—The microscopical examination of such cases observed by the author as following upon catarrh, tuberculosis, and syphilis shows great thickening of the epithelium, keratoid transformation of the superficial tissue, and transformation of the epithelium of the ventricular bands into squamous epithelium.

KUTTNER (Berlin). *Pachydermia Laryngis*.—Characteristic of pachydermia is the transformation of the epithelium into an epidermoid condition. Any characteristic points of differential diagnosis between chronic catarrh and pachydermia cannot be stated. The pachydermia may become metamorphosed into cancer. In the discussion of this subject, Gouguenheim, B. Frankel, Luc, Schmidt, Scheinmann, Meyer, and Toelplitz took part.

JARVIS (New York) showed his wire *Arrears*, and other instruments.

FIFTH MEETING.

MICHAEL (Hamburg). *Black Tumours of the Nose, and Air-containing Polypi*.—The author showed (1) a black tumour of the size of a walnut extirpated from the middle meatus of a lady fifty years of age. The patient has been without recurrence for two years. The microscopical examination showed it to be a melano-sarcoma. (2) A black tumour of the size of a small apple, removed from the middle meatus of a lady

sixty-eight years of age. The microscopical examination showed it to be a polypus, dark-coloured by numerous hæmorrhages. (3) A nasal polypus having within it some air-containing cysts, removed from the nose of a girl seven years of age.

HEYMANN related that the case of melano-sarcoma operated on by him has been four years without recurrence.

MICHAEL (Hamburg). *Complications of Tracheotomy in Old People.*—The author related two cases from his practice. In the first he performed tracheotomy on account of stenosis caused by cancer of the larynx. Some time after this operation, favourably performed, the patient died with the symptoms of an asthmatic attack. The second tracheotomy was performed as preparatory to extirpation of a cancer of the epiglottis. The operation was easy, but when the patient awakened from narcosis he also suffered from an asthmatic attack of great severity. An endeavour was made to remove the canula, when the attack ceased, but re-commenced as soon as the canula was a second time introduced. The author believed that the cause of the attack was irritation of the tracheal nerves, produced by the pulling of the ossified cartilages upon the mucous membrane. If the theory was right, it could be avoided by resection of a piece of cartilage. This was done, and the patient could then bear his canula. The author recommends resection of the cartilage for such cases.

FLATAU remarked that by Hüter resection is also recommended.

BRESGEN (Frankfurt-a-M.). *On the application of Pyoktanin in the Nose and Throat.*—The application of a four per cent. solution to galvano-cautery wounds, applied by pieces of cotton wool, accelerates cicatrization, and diminishes the inflammation. (In my report upon the author's paper on the same subject, the method of application is, by error, incorrectly described.—MICHAEL.) In affections of the naso-pharynx, and in superficial tuberculous ulcers, the medicament can also be applied with good result.

PATRZEK has applied pyoktanin in ear diseases without any benefit.

SCHEINMANN recommends the medicament for the treatment of tuberculosis.

FRENCH (New York). *The action of the Glottis in Singing.*—Dr. French showed in the Urania theatre a great many photographs of larynges enlarged by a camera obscura. The photographs were of astonishing technical perfection, and were rendered more instructive by being explained by the author in a splendid manner. By these photographs many new facts are demonstrated, and many of the existing theories as to the function of the glottis in singing are confirmed.

SIXTH MEETING.

COMBINED WITH THE SUB-SECTION OF PEDIATRICS.

Intubation.

Introduced by O'DWYER (New York) and RANKE (München).

O'DWYER described his method, its advantages and dangers, without adding anything new of importance to his former publications. Of many thousands of the reported cases thirty-seven per cent. have been cured.

He also exhibited the older and newer instruments necessary for the operation.

RANKE wished that a collective investigation should be entertained, and reported on the results obtained in Germany and Switzerland. His results have been elsewhere published. He resumed that intubation will not displace tracheotomy, but that it is a welcome addition to our methods of treating diphtheria.

BOUCHUT (Paris), who first described the method in 1858, showed the instruments of that time, and described their advantages.

NORTHROP (New York), reported one hundred and three *post-mortem* examinations of intubated children.

MOUNT BLEYER (New York) reported five hundred and fifteen cases, with thirty-three per cent. cures.

MASSEI reported six cases. STOERK, CASSELBERRY, MELTZER, ROOT, and RAUCHFUSS also participated in the discussion.

This interesting meeting ended in a somewhat melodramatic manner. The honorary president of the meeting extolled in his concluding words the merits of Bouchut and O'Dwyer; to the former belonged the honour of being the inventor of intubation, and to the latter the honour of introducing it into practice, and perfecting and propagating the method. Strongly applauded by the assembly, he joined the hand of the aged Bouchut to that of the younger O'Dwyer.

ASSOCIATION MEETING.

American Laryngological Association.

Baltimore, Thursday, Friday, and Saturday, May 20, 30, and 31, 1890.

President—DR. JOHN N. MACKENZIE.

THE PRESIDENT read a paper upon *The Relationship between Bulbo-Nuclear Disease and Obscure Neurotic Conditions of the Upper Air Passages*. The author spoke of the intimate connection between many affections of the upper air tracts and the cerebro-spinal and sympathetic systems, remarking that the subject was indifferently dealt with or passed over in silence by text-books on laryngology. He thought that "functional aphonia" and "spasm of the tensors of the vocal cords" were connected with central trouble. He believes that his former contention of the intimate connection of certain obscure respiratory troubles and disorders of the sympathetic system is correct. He related the history and notes of a case of a woman, aged forty, who, after much trouble and mental excitement, was seized suddenly with a drawing downwards and outwards of the left side of the face. There was no difficulty in articulation, and the attack passed off in three days. After an interval of apparent health,

she one morning awoke with loss of power of the right hand, and abolition of sensation in the fingers, numbness and tingling in the extremities, and twitching of one of the tendons in the palm. The tingling sensation extended into the throat. These symptoms lasted about a week, and as they disappeared the patient noticed difficulty in articulation, and mumbled her words. There was no aphasia. The symptoms grew worse, and the mouth became drawn a little to the left side. After a week in bed she improved, speech became clear, but pain in the throat and legs, with swelling of the latter, occurred. All these symptoms disappeared, and several weeks after she was seized with foaming of the mouth and puffing of the cheeks, but without convulsion, and with nothing but tingling of the right hand. She walked upstairs, but could only mumble words. When the attack passed off there was weakness of the tongue, with difficulty of protrusion and of articulation. There was swelling of the legs, with tingling and formication. The tongue trouble grew worse, and dysphagia for liquids followed; pains in the head and back of the neck, which came on afterwards, passed away. Along with partial paralysis of the tongue, and inability to whistle or kiss, though she could blow out a light at a foot distance, but not further, there was now complete paralysis of the soft palate and uvula, with diminution of reflex excitability of the larynx, which was of normal appearance, difficulty in expiratory efforts, thick and tenacious saliva, mumbling speech, muscular weakness of right hand and both legs. The movements of the vocal cords were normal. No aphasia, and no confusion of words or syllables. Temperature, normal; pulse regular, 120; respiration, 30. Patient breaks into spells of noisy weeping, followed by laughter, but the intelligence is unimpaired.

DISCUSSION.

Dr. BOSWORTH thought that the evidence was in favour of a neuritis, particularly of the trifacial, and not of any bulbo-nuclear condition.

Dr. DELAVAN referred to the two cases published by Garel lately of laryngeal paralysis produced by a cortical lesion. While many cases are due to bulbar lesion, it is possible that the same symptoms may depend upon central lesions.

Dr. BOSWORTH failed to recall any well-authenticated case of laryngeal paralysis produced by cortical lesion, where such lesion was found *post-mortem*. Garel has had reasons submitted to him for making a change in his diagnosis since that case was published. Hughlings Jackson, from clinical observations, concluded the source of paralysis of laryngeal muscles to be in the medulla.

Dr. DELAVAN remarked that physiological experiments have clearly shown the existence of a cortical centre for the larynx. There are cases in which, where laryngeal paralysis has occurred, careful *post-mortem* search has proved no lesion to exist in the bulb, but in the brain.

Dr. BOSWORTH admitted the existence of psychical centres in the cortex for the larynx, but not motor centres. He remarked, in answer to a question, that Jackson's views were based upon cases, not experiments.

The PRESIDENT, in concluding, stated that he was at a loss to know

how trifacial neuritis could produce the symptoms in this case, as Dr. Bosworth contended. Unless the trifacial was distributed to the throat and back of the neck, the œsophagus, tongue and other organs, the dorsal region and lower extremities, as well as the face, loss of its function could not produce the phenomena present in this patient. The symptoms corresponded closely with those presented by others as symptomatic of bulbar disease.

DR. S. O. VANDER POEL read a paper entitled *A Case of Myxoma of the Epiglottis*. Cases of laryngeal myxoma are rare. In this case the patient was a German, fifty-four years of age, and he presented a yellowish-red translucent tumour, the size of a horse-chestnut, springing from the lingual side of the epiglottis, attached by a broad band to the glosso-epiglottic fossa of the left side. Its surface was glistening, lobulated, and traversed by numerous small vessels. It was soft in consistence, and gave a sensation of fluctuation. The left free edge of the epiglottis was lost in the growth. It was extirpated with the galvano-cautery snare, easily and without hæmorrhage. It was examined by Dr. Ira van Giesen, and reported to be a pure hyaline myxoma. Two months afterwards the patient died with signs of pernicious anæmia, a careful autopsy failing to reveal the presence of cancer in any organ, as had been feared. Pernicious anæmia and pseudo-leucocythemia are frequently associated with new growths located in different regions of the body, and the author quotes Mosler's remarks on pseudo-leucocythemia in Ziemmsen's *Encyclopædia* as to the enlargement of the follicles of the tongue and tonsils, and existence of soft, shiny, translucent nodules on the epiglottis. In this patient a slight recurrence of the growth was noticed several weeks after its first removal.

DISCUSSION.

The PRESIDENT thought that growths in the locality described by Dr. Vander Poel were rare, but perhaps were not of such rare occurrence lower down in the larynx.

Dr. SWAIN had removed a growth such as this from the glosso-epiglottidean fossæ. It resembled a nasal polypus in every respect, except that it was more consistent.

Dr. VANDER POEL replied. These growths were essentially embryonic tissue tumours, myxomatous tissue being only present in the adult in a typical form, *e.g.*, the vitreous, and in small amount in bone medulla. These growths are frequently of mixed form, *e.g.*, fibro-myxoma and lipo-myxoma, and frequently become sarcomatous.

Dr. S. SOLIS-COHEN read a paper entitled *Look beyond the Nose*. He remarked upon the increasing danger of narrow and unenlightened specialism, and the magnifying of the importance of local lesions, coincident with certain general disorders of the system or with local disease in some other region. This tendency is most pernicious in rhinology. It is not true that enlargements and malformations of nasal tissues are, to anything like the extent one might infer from many literary contributions, the sole cause of persistent and distressing headaches.

He reported three cases bearing upon this point. One of them is

amusing as well as instructive. It was the case of a woman, aged twenty-seven, who had had excruciating headaches and occasional periods of insomnia for years. She first consulted a woman doctor, who ascribed the headaches to the uterus, and gave her three months' special treatment in a sanitarium. Her next adviser scouted the uterine theory, and found the origin of her troubles in errors of refraction of the eyes, which he corrected. A third believed it to be entirely nervous, and gave her a course of electricity. The fourth, fifth, and sixth were homœopaths, the seventh a gynæcologist, and the eighth was the author. At this time the patient believed the nose to be the *fons et origo mali*. Treatment was directed to the relief of deflection of the nasal septum, and failed to cure the headaches and insomnia. Treatment of a feeble digestion, lithæmia and intestinal atony, produced some benefit. Dissatisfied, the patient consulted another oculist, who found the previous correction all wrong, and consequently had aggravated her condition, while his correction was bound at once to restore her to robust health. It did not do so, and on her return two months later to the author she was put upon general treatment again, and was improving greatly.

Without denying that conditions of headache and other nervous disturbances, including asthma, depend upon nasal lesions, a far greater number of cases occur without any nasal abnormality; therefore, while examining the nose as a matter of routine, or when special indications are present, and treating *secundum artem* whatever nasal lesion is present, let us not forget to look beyond the nose.

DISCUSSION.

Dr. ROE remarked that "any man who attempts to ascribe a headache in every instance to a single specific cause should be regarded as scarcely less abnormal than the headache itself." He had seen many cases in which complete relief from a persistent headache followed the removal of a nasal obstruction. The nasal obstruction may be the primary cause of a headache, or it may be only an incidental concomitant.

Dr. JARVIS had often noticed the fact that nervous symptoms may appear in one person and not in another, and there is a difference between the educated, or wealthy, and the labouring classes, in that the latter are far less susceptible to external irritations than the former on account of the inertia of their nervous system. He had found a slight amount of nasal obstruction in a brain worker produce a great deal of distress, headache, etc., while a much greater amount in a labouring man may give rise to no discomfort at all. The nerve symptoms are due to the increased susceptibility of the central nervous system to peripheral impressions.

Dr. A. MACCOY read a paper on *A Case of Myxoma of the Naso-Pharynx in a Child six years old*. The author's experience can recall but one case of nasal polypus in a child, and this was in an infant under one year of age. It was in the right nostril, and was removed by the Jarvis snare. Since the occurrence of this case, in 1883, the author has not seen another. Myxomatous growth in the naso-pharynx is still rarer in children. The case now reported was that of a girl, aged six, who in 1888 contracted a cold which developed into chronic rhinitis. In 1889

complete occlusion of the nostrils followed, with muco-purulent discharge. A large pinkish mass completely filled the naso-pharyngeal region, the finger being with some difficulty got round the growth. Its attachment was the free surface and lower part of the vomer. It was removed with the galvano-cautery snare, and there has been no recurrence. It weighed six drachms, and was pyriform in shape. It was examined microscopically, and pronounced to be a sub-mucous myxoma.

DISCUSSION.

THE PRESIDENT stated that he had in Keating's Encyclopædia recorded two cases of myxoma occurring in a brother and sister, aged respectively four and six. In one the mother had noticed something protruding from the nose at one year of age, in the other the growth was probably congenital.

DR. SWAIN said this tumour had the appearance of a fibro-myxoma. He had seen such a case in a child eight years of age.

MR. CHARLES H. KNIGHT read a paper on *A Case of Fibro-Sarcoma of the Right Nasal Fossa, with unusual Clinical History*. The patient was a baker, forty-two years of age, and came under observation in 1886. Twelve years before he received a blow on the nose; for the last two years he had nasal obstruction and catarrhal discharge, loss of the sense of smell, frequent sneezing, and constant frontal headache. Two months ago he expelled from the right naris masses of bloody tissue, and a large, fleshy mass from the posterior naris. (Edematous swelling of the lids closed the right eye, and there was swelling and sensitiveness of the right infra-orbital region. A soft, vascular, sensitive mass completely occluded the right naris, and could be seen projecting into the naso-pharynx. There were no glandular enlargements, and no cachexia. Profuse hæmorrhage and extreme pain followed an attempt to surround the growth with a wire loop. A large piece was removed from the anterior portion, but was reproduced within three days. It was found microscopically to be fibro-sarcoma.

On November 15th, Dr. Weir performed Chassaignac's operation, a quantity of growth being removed by the curette and wire loop, but as it invaded the ethmoid and sphenoidal cells it could not be followed. The patient made a good recovery, but six weeks after reappeared with the nostril blocked with recurrence, and amblyopia and impaired vision in the right eye, and with divergent strabismus. In a week the sight of that eye was completely lost. An ophthalmoscopic examination by Drs. Roosa and Emerson, etc., showed no change in the fundus. A week later the left eye began to lose power, but nothing abnormal was seen with the ophthalmoscope. In two weeks the patient was completely blind. There was no impairment of hearing, and no muscular paralysis. The tumour then projected from the anterior nares, and filled the naso-pharynx, so as to interfere with speech and deglutition. Several attacks of wild delirium followed. There was no rise of temperature. Two weeks later the right eye and side of the face disappeared beneath a fungoid mass of friable, vascular tissue, from which bloody serum constantly oozed. There was intolerable fætor. The tumour had extended backwards, so that speech was unintelligible, and dysphagia

was extreme. The patient became much emaciated, was at times violent with various hallucinations, but for the greater part of the time lay in a condition of stupor.

A week after this, and three months from the date of the operation, Dr. Knight was called to the patient. During an attack of delirium he had torn a portion of the tumour from the face, and had dragged out a mass of the tumour from the naso-pharynx with his finger. The rush of blood was so profuse as almost to suffocate him. The bleeding ceased, the patient lay, covered with blood, in a comatose condition, and died in about five hours. Autopsy was not allowed.

Probably the growth began in the sphenoid or ethmoid cells. No operative interference could have been very promising, but resection of the jaw would have given better access to the affected region, and permitted a more radical removal. Partial and palliative operations should be discouraged, except for relief of swallowing or breathing, or arrest of hæmorrhage. The author agrees with Plicque (see this Journal, May, 1890) that ablation with snare or forceps should never be undertaken, but always an external incision, removing enough of the bony structures to permit the tracing of the neoplasm to its origin.

The author discusses the question whether the traumatism received ten years before bore any causative relation to subsequent developments, and concludes that it alone is not capable of creating malignancy.

(To be continued.)

REVIEWS.

1.—**Diseases of the Nose.** By JAS. B. BALL, M.D., pp. 243. H. K. Lewis, London.

2.—**Diseases of the Nose.** By SPENCER WATSON, F.R.C.S., pp. 218. H. K. Lewis. THAT Rhinology, of which so little was known outside the circle of a very few specialists in this country even a few years ago, is making rapid strides is evident from the number of works that have lately been presented to the public in England.

Of the two works under review, that of Dr. Ball is intended "to give, within a moderate compass, such a description of the diagnosis and treatment of diseases of the nose and naso-pharynx as might be useful to the senior student and practitioner." A book of this kind, of course, makes no pretension to thoroughness, but we can say that, so far as it goes, the work in question is a reliable one for commencing rhinologists, and well up to modern methods. It deals with the subject more from a medical than a surgical standpoint, and for the special surgery of many rhinological conditions the student will be compelled to seek information from other sources.

Being, however, modest in its aims, and evidently intended as an introduction to the subject for those who may desire to become acquainted with the main features of the modern science of rhinology, it would perhaps be out of place to expect the author to deal with the pure surgery

of the subject in such a work. Suffice it to say that this is indicated where necessary. We can safely recommend the book as a useful addition to rhinological literature.

Mr. Spencer Watson's work is much more pretentious in character, and evidently aims at being a complete text-book of the subject.

In the chapter upon "the anatomy and physiology of the nose and nasal fossie," which opens the book, while the general anatomy of the organ is dismissed in a very cursory manner, a good deal of space is given to the consideration of the "minute anatomy" of the nasal fossie, *i.e.*, the histology of the mucous surfaces. While a good deal of the latter might have been omitted, since it contains nothing that is new, the chapter would have been more complete with a fuller anatomical description of the organ. What there is might almost have been omitted, for all the value that it would be to one seeking information. As to the physiological portion of the chapter, the nose is treated almost entirely as an organ of special sense, and but very little in relation to its equally important function as an integral portion of the respiratory apparatus.

We notice the statement that the irritation of the mucous membrane due to "the altered character of the secretion in catarrh, and in the different forms of coryza . . . probably depends upon the presence of ammonia." No reference whatever is made to the part that micro-organisms undoubtedly play.

In the chapter on rhinoscopy, the author recommends the syringe or nasal douche for cleansing purposes, and apparently disregards all possible dangers from use of the latter, since he does not even refer to them. We are surprised to find no mention at all of sprays, except for hot and liquid vaseline, surely a most important omission. We agree in the main with the author's statement that "palate hooks are seldom of any use." Where thought necessary he recommends that devised by Dr. White.

The pathology of *ozæna* is very indifferently discussed, and Læwenberg's researches are dismissed with mere mention. The author has only cured one case, "and that a doubtful case of atrophic rhinitis." No mention whatever is made of the use of electricity as a stimulant application for restoration of the nutrition of the mucous membrane.

We find no reference to "fibrinous rhinitis," and nasal diphtheria is very cursorily referred to. As to chronic hypertrophic rhinitis, the author remarks that the use of the cautery should be limited to cases in which the hypertrophy is confined to the anterior third of the inferior or middle turbinates, and even then when the hypertrophy is very limited in degree. He does not believe in the frequent association of necrosis of the ethmoid with polypi, and thinks that probing the bones may excite the process. In speaking of "gelatinous polypi," the author divides them into two varieties, the simple sarcoma and the adenomatous form. By "sarcoma" he means a hyperplasia of a normal simple tissue, and what is generally described as myxoma. The use of the term "sarcoma" in such a connection is unfortunate, and indeed not correct. In the chapter on epistaxis we miss any reference to the importance of the symptom in naso-pharyngeal fibroma and malignant tumours.

Under the head of "primary syphilitic ulcers" within the nostrils, the author describes what appears to have been an undoubted case of chancre of the nasal fossæ. Adenoid vegetations are treated of pretty fully. We agree entirely with the author in the statement that the removal of these growths in children can rarely be completed without the use of a general anæsthetic.

Chapters upon the diseases of the accessory cavities of the nose and sinuses follow, and Dr. Robert Liveing contributes an article upon lupus erythematosus, and Mr. Cumberbatch a useful chapter upon the connection between nasal and aural diseases.

It is not possible, within reasonable limits, to give a detailed notice of this book. While a good many sections are scarcely up to the most modern standard—and we are bound to say that there are better works upon the subject—we must in justice say that this is undoubtedly a good one. The faults of the work are perhaps greatly due to the endeavour to bring up an old work to the level of modern rhinology, which has made enormous advances since the first edition of this book was published. The surgical sections of the work are undoubtedly the best. We cannot speak with commendation of the illustrations. All are indifferent, and some are positively atrocious. It is easy, now-a-days, to obtain excellent drawings of histological specimens, but to imagine that the pathology of the subject can be illustrated by such cuts as are contained in plates II. and IV. is a poor compliment to modern art. The intense agony depicted on the face of the individual undergoing rhinoscopic examination (see plate I.) is really amusing. Notwithstanding its defects, the work contains much that is interesting, and we cannot but welcome any serious attempt to present the modern science of rhinology to English readers. A work by a surgeon who has practised rhinology for so long as the author of this book cannot fail to be of importance.

Obituary.

Dr. ZOLTAN JELENFFY.

FEW of the members of the Sub-section of Laryngology at the Berlin Congress, which engaged in scientific intercourse and social pleasures, knew that one of their number, who should have taken part in their labours and pleasures, was lying alone in a hospital sorely stricken with disease. He had been seen at the first general meeting, but did not attend the Sub-section.

On the 23rd August died Dr. Zoltan Jelenffy in his forty-second year, from endocarditis ulcerosa, and two days later he was followed to the grave by the laryngologists of Berlin. The scientific attainments of the deceased were warmly eulogised in a speech by the President of the Sub-section, Dr. B. Fränkel. In 1873, Dr. Jelenffy commenced to practise laryngology at Buda-Pesth, having prepared himself for the position

by a year's work as assistant to Professor Stoerk in Vienna. His first published paper was upon the physiology of the laryngeal muscles, observations which have largely influenced all his later work. The subject was of such interest to him that he devoted his whole life to the elucidation of its numerous problems. Indeed, the very last paper of his, which he should have read at the Congress, but was prevented from doing so by his fatal illness, was entitled "Zur Physiologie und Pathologie der Bewegungen des Kehlkopfs."

Recognition and success has crowned his work, and only in the very week of his death the journals published the report of his acceptance into the Medico-Legal Senatus of Hungary.

We have lost in Jelenffy a diligent, honest, and amiable colleague. He wrote many papers, of which the following list contains the most important :—

1. Der musculus crico-thyroideus, "Pflüger's Archiv," Bd. 7.
2. Ueber fixation der Giessbeckenknorpel, "Wiener Med. Wochenschrift," 1872.
3. Gegen die Laryngofission, ditto 1873.
4. Stimme ohne Stimmbander, ditto 1876.
5. Epiglottikon, ditto 1877.
6. Laryngoskopie der Gegenwart, "Gyogyaszat," 1887.
7. Fremdkörper in den die Luftwegen, "Pesther Med. Presse," 1887.
8. Vorfall der Morgagnische Ventrikel, ditto 1887.
9. Neuer Capitel der Larynx-Chirurgie, "Berl. Klin. Woch.," 1887.
10. Neuer Nasenspiegel, ditto 1887.
11. Ausspülung der Nasen, "Pesther Med. Presse," 1888.
12. Beiträge zur Anatomie, Physiologie und Pathologie der Kehlkopfmuskeln, ditto 1888.
13. Beiträge zur Anatomie, Physiologie und Pathologie der Kehlkopfmuskeln, "Berlin Klin. Woch.," 1888.
14. Ueber Contractilität in der Larynx-muskeln und den Aethereffect ditto 1888.
15. Musculus Vocalis und Stimmregister, "Centralblatt de Med. Wissenschaften," 1889.
16. Ausspülung der Highmorshöhle, "Pesther Med. Presse," 1889.
17. Ausspülung der Highmorshöhle, "Berlin Klin. Woch.," 1889.

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ON DEVIATIONS AND SPURS OF THE
NASAL SEPTUM.¹

By Drs. E. T. MOURE (Bordeaux), and BERGONIÉ (Bordeaux).

DEVIATIONS and spurs of the septum of the nasal fossæ, although described long ago by most anatomists, have really only had the attention of clinicians drawn to them during the last few years, from the time when the pathology of the nasal cavities assumed the importance due to it. We can therefore assert, without fear of contradiction, that the question which occupies us to-day is one of those which we owe to rhinologists, who alone have demonstrated the clinical importance of these alterations of the skeleton. If you have done me the honour to nominate me to open a discussion upon a question so full of interest, I do not think that the intention is that I should describe to you the different forms of deviations of the nasal septum, and the various spurs and excrescences which are met with every day, and with which specialists are perfectly familiar. It will suffice for me to recall to you that these lesions have been the subject of numerous works in France (Loewenberg, Duplay, E. J. Moure, Miot) and abroad (Zuckerkindl, Michel, Bresgen, Fraenkel, Moldenhauer, Jurasz, Schech, Welcker, Bosworth, Bryson Delavan, Jarvis, Morell Mackenzie, etc.), so as to dispense with my entering beforehand into the anatomical dispositions of these various pathological conditions. I shall not discuss the origin of these lesions, as to whether they are congenital, whether they occur at a certain age (six or seven), or whether they are the result of an error of nutrition, or a traumatism which often passes unnoticed. It is incontestable that excrescences from the anterior portion of the nasal fossæ often have their origin in a fall upon the nose, or a blow upon this organ. It is recognised with what facility children fall upon this prominence, and we cannot forget that they also often receive blows from the fists of ill-humoured or mischievous companions. It would not be extravagant to claim that the traumatisms of

¹ Read by M. Moure, at the International Congress of Berlin, 1890.

infancy could have their share in the pathogeny of these productions or malformations. However, I shall not dwell upon this part of the subject, having especially the aim in this communication of (a) the operative indications for these cartilaginous or osseous outgrowths, and (b) the manner of performing the operation.

(a) *Operative Indications.*—As it is conclusively proved that the septum of the nose is never strictly perpendicular, and that from birth (Duplay) or from the age of seven (Zuckerkindl) the septum inclines to one side or the other, it will be well to guard against considering as pathological every malformation, even slight, of the septum, and from wishing to redress a curvature often quite normal. This is an anatomical condition against which we have not to struggle, since it does no harm to the subject in whom it occurs. It is only when the deviation or projection is really pathological that we are authorized to interfere by one of the means which we indicate further on. Such are, for example :

1. *Stenosis of one or both Nasal Fossæ*, impeding respiration from being properly performed by these cavities, and putting the entire organism under conditions of defective vitality. I have no need here to remind you of the rôle of the nose in the physiological act of respiration ; we all know too well its importance to underrate the troubles which result from obstruction of these air channels, and consequently the formal indication for limiting this state of things within the limits of possibility.

Nasal stenoses, whether congenital or acquired, have, moreover, the inconvenience of very often causing mischievous effect upon the organ of hearing, either by causing a nasal catarrh of which the propagation to the Eustachian tube or middle ear is very fatal to this organ, or in causing complications of tubal affections or pre-existent affections of the tympanum.

Not only does impeded nasal respiration constitute a bad condition as regards the hearing of the patient, but malformation of the cavities very often makes treatment (catheterism) difficult, impossible, or even ineffective. I well know that it is rare to find both fossæ equally obstructed, and that one is generally narrowed and the other enlarged.

The catheter may thus be introduced through the side opposite to that obstructed, and insufflation is still possible, but it is none the less true that benefit obtained in these conditions is of short duration so long as the stenosis has not been modified by energetic treatment. We cannot hesitate to make certain nasal affections (Eustachian catarrhs, middle ear catarrhs, sub-acute or chronic, moist or dry) enter into the indications for operation upon deviations or spurs of the nasal septum, but only when they are sufficient to constitute a possible cause of the lesion, and are hindering cure or favouring recurrences.

Chronic catarrhs of the pituitary membrane, with affections of the nasopharynx or pharynx consecutive to stenosis of the nasal fossæ, enter also into the category of stenotic indications which I have just mentioned.

2. *Reflex Neuroses.* When the outgrowths, spines or asymmetries of the septum, without being large enough to impede nasal respiration, become the point of departure for those nervous affections so various and so well known to-day, thanks to the works of Voltozni, B. Fraenkel,

Koch, Hartmann, Sommerbrodt, Joal, Duplay, Cartaz, Ruault, E. J. Moure, J. Mackenzie, etc.—to mention only some—when these septal spurs are evidently the cause of these reflex neuroses (migraines, neuralgias, glottic spasms, spasmodic cough, etc.), it is necessary to remove the spine which causes so much trouble, or at least which acts as a determining cause.

3. A last indication is *æsthetic*. When the malformation is the result of a traumatism (blow or fall upon the nose) which has occasioned either a fracture of the septum and the formation of a vicious callus, or an enchondroma or exostosis consecutive to a perichondritis or periostitis; when a depression of the nasal skeleton, or a considerable deformity of this organ results, we may then, in certain cases and subjects, interfere surgically if we may hope to remedy this condition of things, and to obtain for the patient a sufficiently proper nose. I hasten to add that these extremes are pretty rare. We shall see a little further on what treatment is called for in such cases.

Such is the *résumé*, briefly, of the different cases in which we ought to interfere, and we shall now study the *modus faciendi*, which constitutes the second part of this study.

(b) *Treatment of Deviations or Crests*.—When the deviation is simple and relatively easy to correct, the finger may be employed as recommended by Michel, or the different prothetic apparatus of MM. Jurasz of Heidelberg, or Delstanche of Brussels. These apparatus, the form of which should always be adapted to each case, can only be really efficacious in adolescents and in the case of simple incurvation and recent luxations of the fibro-cartilage. The existence of spurs or sharp crests constitutes almost a contra-indication to these replacements, which are often difficult and always take long to obtain.

The most simple and rapid method of arriving at the result desired is still surgical treatment, which varies with each patient and with the end in view. If it is desired merely to render respiration through the nose more easy, we may, as recommended by Blandin, make a communication between the two nasal cavities, by removing a piece of cartilage with the punch. This is comparatively a simple proceeding, but rather painful, and only half solving the problem, or rather putting it on one side without attempting to solve it. Chassaignac, bolder, dissected the pituitary membrane and removed the deviated portion by resection; this is, indeed, the proceeding generally used at this time, the instruments for which merely have varied. In place of using a gouge which many specialists have nearly abandoned, either the saw is used *ad hoc*, or the cutting forceps. This is evidently a rapid process but a sanguinary one, for the flow of blood is always pretty abundant. Hæmorrhage, however easy to control, is a serious obstacle to operation, because it frightens the patient if he is conscious, or impedes chloroformization if he is asleep, and because it also hides the field of operation and does not permit the surgeon to operate at his ease.

Moreover, the subsequent treatment is prolonged, sometimes even painful, if we wish to avoid adhesions which sometimes tend to be produced between the resected portion and the mucous membrane

covering the inferior turbinated body. *En résumé*, resection of the septum as thus practised is an operation at which the patient may well hesitate, in spite of cocaineization and anaesthesia, and except in cases where the outgrowth is very exuberant or very sharp, and of small calibre, and consequently easy to rapidly resect, I consider that there is much labour and sometimes evil consequences in obtaining a quite minimal result. And in spite of all the success attributed to this nearly universally employed method, I cannot share the enthusiasm of my *confidés*, and particularly of my American colleagues. In spite of all the perfections introduced by them into the apparatus, in the rapidity of operation, and security offered to the patient, I still consider the cutting method as defective and too alarming for the great generality of patients. To find a method without pain, and especially without hæmorrhage, is a considerable progress, and one which will always decide them to get rid of the deformities or outgrowths with which they have often existed for more or less prolonged periods of time. This process, introduced in France and used by Dr. C. Miot, has been simultaneously used by Dr. Garel, of Lyons, and myself. The results obtained have been so encouraging that I do not hesitate to give preference to the method in the treatment of deviations (with or without thickening) and of osseous or cartilaginous outgrowths of the nasal septum. This method is *electrolysis*. With it we can operate as energetically or as lightly as is desired, and, thanks to cocaine, it is made almost painless; and a point of capital importance, the septum is destroyed without any flow of blood, or at least with scarcely a few drops which stain the handkerchief when the electrolysis is ended. For more than two years I have employed this method; I have resected a great number of abnormal septa, and the result has in all cases been that which I sought.

In severe cases with voluminous deviations and exostoses, and at the commencement before the *modus faciendi*, the intensity of the current employed, and its duration had been established properly, many sittings were necessary; but the patient always submitted at the second or third sitting more willingly than at the first, knowing very well that the operation was without pain. I will not fatigue you with the enumeration of cases all showing a more or less complete analogy; I will only describe to you the electrical *technique* of the operation.

This part of my subject has been treated of by M. le Dr. Bergonié, Professor of Physics at the Faculty of Bordeaux, and in charge of the electro-therapeutic department of the Hôpital Saint André, with whom I have practised all the resections made by this method, and whom I now leave to speak.

"The electrolytic method which Dr. Moure and I have employed for "destruction of septal deviations, is based on the following electrical data.

"We have sometimes employed monopolar positive galvano-puncture, "sometimes bipolar galvano-puncture.

"The operative *technique* for the employment of monopolar positive "galvano-puncture is as follows: A large indifferent electrode 200 centimètres (10 by 20) square, was applied to the patient between the two

"scapulæ, and connected with the negative pole of the battery. This
"indifferent electrode, which I have recently constructed, is formed of a
"copper plate covered by 'flatting' on the two surfaces with a thin sheet
"of platinum, which is unoxidizable and not attacked by electrolytic
"action. This plate, protected at its edges by an isolating rim of caout-
"chouc, is stuffed with several layers of hydrophilous gauze, forming a
"layer of nearly a centimètre in thickness, and kept in place by an external
"envelope of fine linen. The advantages of this indifferent electrode are
"the following : it remains almost indefinitely without discoloration by
"metallic electrolysed salts, it imbibes and retains the water of imbibition
"with the greatest facility, and lastly, its electrical resistance is constant,
"a factor which is not obtained by the ordinary indifferent copper or
"nickel electrodes, which are quickly covered on their surface exposed to
"the action of the current with a layer of oxide which is more or less
"isolating.

"This indifferent electrode being put in place, and the patient
"cocainized, a steel needle is inserted well into the centre of the deviation
"to be destroyed. We have constantly employed steel needles because
"their penetration, even in the hardest septa, is obtained without too much
"difficulty. It is not so with needles made of the precious metals, such as
"gold or platinum. Their points are quickly blunted in most cases, and
"penetration is difficult. These steel needles may have a diameter of 0·8
"to 1·5 millimètres, and the diameter of the needle may be proportioned
"to the volume of tissue to be destroyed by electrolysis. The largest
"needles often yield the best results. Their length is from 8 to 11
"centimètres. These needles are easily obtained in commerce, where
"they are sold for sailmakers. The needle is isolated in all its free
"portion by a thin caoutchouc tube. The positive pole of the battery is
"connected with the needle. An electro-motive force of thirty volts of the
"battery utilized is quite sufficient for all cases. The circuit is formed
"(1) by a battery of thirty volts ; (2) by a continuous rheostat (the one we
"have employed is a liquid rheostat of special model, and giving a resis-
"tance of from a demi-migohm to several ohms, passing through all
"intermediate strengths) ; (3) by a milliampèrètre exactly standardized
"(the one we have employed was constructed under my directions in
"1885—it is a Deprez-d'Arsonval with a vertical needle, twenty-three
"centimètres long, moving on a dial of the same radius, graduated in demi
"and milliampères, allowing the ready perception of a quarter of a
"milliampère) ; (4) the patient. In commencing the operation the rheostat
"is put at its maximum of resistance, and the circuit closed. The current
"intensity is then some hundreds of a milliampère ; the resistance of the
"rheostat is then very slowly and progressively diminished, until the
"intensity of the current is at its desired figure. The duration of this
"period of increasing the intensity should be not less than two minutes,
"if all painful impressions are to be avoided to the patient. During this
"period the intensity rises a little. It is then brought back to zero with
"the same precautions and slowness. The sensation of constriction and
"tearing, which the patient feels whilst the current is passing, ceases
"almost suddenly with a slight diminution of the current intensity so

"much that there is, so to speak, no relation between the feeble amount of variation in the current which is made, and the clear sensation of relief and expansion which the patient feels.

"The destructive effect produced by the electrolysis is proportional, as we should expect, to the quantity of electricity which has traversed the electrolysed tissue. This law is, however, true only when the intensity has not passed below 10 milliamperes. For intensities between 12 to 30 milliamperes, intensities which we have used in the numerous cases we have treated, this law appears to be always true. It is known that if the quantity of electricity, which may be called Q , has traversed a circuit in which has circulated a current of intensity I , during a period T , then $Q = IT$. The quantity of electricity may therefore be varied, and also the effect produced by it, by making a variation of either factor, or even of both at the same time. The intensities employed by us have varied from 12 to 30 milliamperes, as I have said previously. The period of passage of the current has varied from ten to twenty minutes. So that if a calculation is made of the amount of electricity capable of destroying a deviation of the septum of medium size by the monopolar positive galvano-puncture method, this amount is found to oscillate about the figure of 18 colombs. This is only an average figure, which particular clinical conditions may cause to vary more or less. Thus, in a very dense tissue, in which the needle penetrates with difficulty, 20, or even 22 colombs would be required to produce a limited destruction, whilst the same amount traversing soft friable tissue would produce a destruction much more extensive, or even a perforation of the septum.

"The question of density of the current has not arisen, since, the surface of the needle employed being always very small, the density of the current at that spot is always very great.

"When the needle is withdrawn it is seen to be strongly oxidized. The same needle cannot be used a second time.

"The second method which we have employed is bipolar galvano-puncture. In this case the operative *technique* is as follows:—There is no longer any indifferent electrode; after cocaineization two steel needles are introduced into the deviation, sufficiently apart that they cannot touch in their course. The needle placed in the thickest or hardest part of the deviation is connected to the positive pole, the other to the negative pole. These two needles are isolated throughout their free portion by a thin caoutchouc tube. This isolation ought to be performed with care in order to avoid all contact between the two needles, which would short circuit the patient. An electro-motive force of 20 volts, the limit of the battery which ought to be employed, is more than sufficient by reason of the small resistance offered by the tissue which is to be electrolysed between the two needles. The circuit is the same as in the previous case, and the mode of introducing the current is just the same. The quantity of electricity is not the same by the bipolar method as by the monopolar method to produce a given destructive effect. It is a little less by the bipolar method. This is intelligible, for if the electrolytic effect at the level of the negative needle is much less pronounced, as is the rule, than round the positive

“pole, this effect is not *nil*; it is added to the effects produced by the positive needle.

“The intensities which have seemed to us convenient for all these cases range from 12 to 25 milliamperes—the duration from ten to twenty minutes; the average quantity of electricity employed in an average case by the bipolar method being about 16 colombs. There is sometimes produced slight hæmorrhage on withdrawing the negative needle. It is to endeavour to prevent this hæmorrhage that we try to cause inversion of the current to intensity zero. We have succeeded only rarely after having made this inversion in causing the current intensity to pass to milliamperes. This is due to an electrolytic polarization of the tissues, which enormously increases the *apparent* resistance. This inversion is not indispensable; its only aim is to check the slight hæmorrhage produced by the puncture of the negative needle. This needle, if inversion has not been performed, is not attacked, and may be used again.

“Which is the best of these two methods?

“From the electrical point of view they present no sensible difference apart from the small relative difference in the quantity of the electricity, but it is not the same from the clinical point of view. The painful phenomena provoked by the derivations of the current in the sensitive nerves are much more marked in the monopolar than in the bipolar method. It must necessarily be so, for the intensity of the derived currents in the bipolar method can only be excessively feeble by reason of the proximity of the two needles acting as electrodes, and the feeble resistance interposed. The bipolar method ought, therefore, always to be chosen when the needle can easily be introduced into the deviation to be destroyed. There are cases where this is not possible; in these, monopolar galvano-puncture will answer all indications.”

I repeat that this is a very simple method of procedure for both patient and physician; it is a proceeding absolutely certain, after the few inevitable failures of all new trials, and the result is absolutely as solid and definite as in sanguinary resections. Can electrolysis suffice for all cases? Evidently not, and it cannot be employed when the rectification of the nose is made from an anæsthetic point of view; in this case surgery will be indicated, and it is necessary to open the nose by the method of Demarquay, Richet, or d'Ollier (of Lyons), a method already employed in America. A large operative surface will then be necessary, for it is necessary to fracture to make a veritable osteotomy of the septum, often even of the nasal bones, so as to then apply an apparatus appropriate to each case. These cases are evidently out of the ordinary run of our operations, for which electrolysis well conducted amply suffices, for it always gives the desired result—that is to say, disappearance of the cartilaginous or osseous excrescences of the nasal septum.

ON THE NATURE OF THE TONSILS AND LYMPHOID TISSUE OF THE PHARYNX.*

By MAYO COLLIER, M.S., F.R.C.S.

MUCH has been written on the subject of the tonsils. Many and extraordinary are the notions entertained, not only by members of this profession but by the public at large, as to the nature and functions of these structures.

Loud and frequent are the objections encountered daily by surgeons on proposing to partially remove the parts when diseased. Interference with growth, loss of sexual power, consumption and laryngeal troubles are only a few of the mildest of consequences that are said to follow their interference.

As we have lately been furnished with an article on this very subject by a journal ably presided over by several Fellows of this Society (I allude to the *Journal of Laryngology and Rhinology*), giving us the tonsils and lymphoid tissues of the pharynx, as it were, up to date, and whilst the subject is consequently fresh in your minds, I have ventured to place before you my views of the nature and *raison d'être* of these structures.

I read the article through two or three times, but must confess I was not enlightened; on the contrary, I was surprised to see so much obscurity and theory imported into what, to my mind, appears a very simple matter. Instead of relating to you the several theories and opinions recently advanced, I will proceed to place before you an explanation of the existence of the bodies, at once, I trust, simple and in accordance with fact. I would first direct your attention to some simple anatomical facts.

Professor Macalister, in his recent work on anatomy, defines a lymphatic gland as an oval or rounded aggregate of definitely encapsulated follicles found in the course of large lymphatic trunks, and not connected with mucous membranes.

On the highest authority, then, of the day, we may state that the tonsils are not lymphatic glands, and, moreover, that mucous membranes are quite devoid of these structures.

Again, Professor Macalister defines each tonsil as a folded area of mucous membrane, averaging 22 millimetres in length by 9 millimetres in the male, and 14 millimetres by 7 millimetres in the female.

Mucous membrane, then, having no lymphatic glands in the strict sense of the term, we find that lymphoid tissue is distributed in more or less irregular masses throughout the alimentary canal from the mouth to the anus.

In the sub-epithelial tissues are numerous patches of adenoid connective tissue, in whose meshes numerous lymphatic corpuscles are entangled and undergo proliferation..

The lymph paths of the tissues, enclosing them, freely communicate with the neighbouring lymphatic vessels.

* Read at the Meeting of the British Laryngological Association, November, 1890.

These patches are called lymphatic follicles, and are found grouped in the alimentary canal in four distinct ways.

(i.) Diffused with indefinite limits, as in the œsophagus, rectum and mouth, and lower part of pharynx.

(ii.) Defined patches of minute size, as the solitary gland of the small intestines.

(iii.) Aggregates of follicles more or less defined, as exemplified by a Peyer's patch.

(iv.) More isolated patches of adenoid tissue placed in recesses and at the bottom of mucous pouches, as at the root of the tongue, roof of the pharynx, and between the pillars of the fauces. I submit that there is no difference whatever between a Peyer's patch and a tonsil.

The one is mucous membrane, with lymphatic follicles grouped together, but not folded into a bud or rosette; the other is simply a piece of mucous membrane, according to a definition in which lymphatic follicles abound, folded into a bud or rosette.

A transition between the folded or bunched mucous membrane, as represented by the tonsils and the flattened or smooth mucous membrane, as seen in a Peyer's patch, is found at the roof of the pharynx in the so-called pharyngeal tonsil, and a still further stage in complexity is seen in the folding of the mucous membrane at the root of the tongue, arranged in accordance with the requirements and functional activity of the parts.

I would now direct your attention to a drawing in section of each of these localities, and you will then see, that except in the more or less irregularity of the surface, there is absolutely no difference in the structure of these parts.

Judging from this, it is only fair and right to assume that whatever part in the economy of the mucous membrane or body a Peyer's patch performs, that very same function is performed by the tonsils and lymphoid tissue of the pharynx.

We know that on the absorption of any substance from any portion of the surface of the body, that substance must pass through, and if necessary, become arrested by a so-called lymphatic gland.

The absorptive function of the skin being, in man at least, very little put to use, a continuous sheet of lymphoid tissue becomes unnecessary, and isolated masses, in the form of glands placed in connection with the main trunk, are sufficient to arrest or alter the substances so absorbed.

Not so on mucous surfaces; here the whole tract is one large, thirsty sand, ready to absorb with avidity fluid and solid particles alike. The substances so absorbed must be acted upon, altered, or arrested *in situ*; hence the necessity for a more or less continuous sheet of lymphoid surrounding mucous membranes.

I need only now remind you to what extent the mouth and pharynx are capable of absorbing fluids, solids, and gases, and point out to you the necessity of so arranging the lymphoid cloak of the pharynx that it may not hamper the delicate actions of the muscles that move these parts, to understand the grouping of this tissue in recesses forming the so-called faucial, laryngeal and pharyngeal tonsils.

THERAPEUTICS AND DIPHTHERIA.

Hays.—*Improved Spray Producers.* "Med. Record," Mar. 22, 1890.

A MODIFICATION of Sass's apparatus.

B. J. Baron.

Rethi (Wien).—*Trichloroacetic Acid and its Application as a Caustic.* "Wiener Med. Presse," 1890, Nos. 43, 44.

THE author has applied the newly-recommended medicament in many cases, but has found that it can in no manner compete with chromic acid, because it is not so easily applied in distinct places, and it causes stronger reaction.

Michael.

Manasse.—*Hydrate of Terpene and its application in Whooping Cough.* "Therap. Monats.," 1890, No. 3.

IN forty-one cases the author has applied terpene in doses of 0.5—1.0, and *pro die* 3.0. The cases all improved in a short time, and the attacks were mitigated. The author believes that the favourable influence of terpene upon the concomitant bronchial catarrh is due to improvements in the nature of the secretion, which becomes more and more fluid.

Michael.

Loewenthal (Berlin).—*On the effect of Bromoform in Whooping Cough.*

IN the polyclinic of Prof. Senator the author has applied bromoform (as first recommended by Stepp) in one hundred cases. It mitigates the attacks and shortens the duration of the disease. In one case intoxication was observed.

Michael.

Haushalter.—*Three Cases of Infection by the Staphylococcus Aureus, occurring in the course of Whooping Cough.* "Archives de Medicine Experimentale," September, 1890.

THE three cases of the author are instructive examples of this infection secondarily occurring in the course of specific diseases. They refer to an epidemic of whooping cough occurring in a family of mountebanks, a few days after they had commenced business at the fair at Nancy. Of eight children, seven contracted the disease; the only one who was not attacked was a child of seven, treated in hospital for a curvature of the spine. Some weeks later four children presented severe symptoms—high fever, diarrhoea, dyspnoea—and three of them, aged respectively two, three, and four years, were admitted under Professor Spillmann, where the author (chef de clinique) had the opportunity of seeing them.

These three children were affected with secondary broncho-pneumonia, the clinical features of which developed in the ordinary way during several weeks; then the broncho-pneumonia was recovered from, and the whooping cough resumed its ordinary evolution. Wishing to find the infectious germ which had caused the broncho-pneumonia, but compelled to give up the search for it in the expectoration on account of the mixture

of the latter with vomited matters, the author made, on nutritive gelatine, ten days after the commencement of the secondary affection, cultivations with the blood of the three young patients, obtained from the finger after the usual method and with the usual precautions.

The next day, in all the tubes, there was obvious growth of colonies of a microbe, which, both from its appearance and from the results of its inoculation on animals, was demonstrated to be the staphylococcus aureus. The three patients thus presented a general infection of the organism by this microbe, and, doubtless, their broncho-pneumonia was likewise caused by the staphylococcus. *Joal.*

Roux.—*What are the Preventive Measures which should be taken with regard to Diphtheria?*

THE author says that, in order to avert the spread of diphtheria, it is of the first importance to recognise the disease as early as possible; the employment of bacteriological methods allows an early and certain diagnosis to be made, and has a real importance with regard to everything that concerns measures of prevention. These measures can be formulated as follows:—1. The active diphtheritic virus being able to survive for a long time in the mouth after the patient is cured, the patients should not return to their usual mode of life until it is certain that they do not convey the bacillus. 2. The diphtheritic virus in a dry state remains active for a long time, especially under cover from light; it is necessary to pass through boiling water and to soak in this everything which has been in contact with diphtheritic patients. Linen, bed coverings, etc., must be disinfected before being taken to the laundress. The rooms in which the patients have been treated, and the carriages in which they have been conveyed, ought to be disinfected. Parents visiting their children suffering from diphtheria and admitted to hospital frequently bring back the germs of the disease to their family. These visits should be as few as possible. Before allowing persons not connected with the administration of the hospital to visit the wards, they should be compelled to assume a special dress which will envelope their clothes, and leave it off on going out. They should further be compelled to disinfect both body and hands. School children should be frequently examined with reference to the condition of the throat, especially when a case of diphtheria has occurred amongst them. 3. In throat affections, especially in the case of children, and above all in the sore throat accompanying rubeola and scarlet fever, from the beginning of the disease frequent washing of the mouth and pharynx with antiseptic solutions should be practised. *Joal.*

Oertel (München).—*On the Diphtheritic Poison and its Effects.* "Deutsche Med. Woch.," 1890, No. 43.

WITH special reference to the results of the observations of the last few years concerning the diphtheritic poison, the author believes that the poison is produced by microbes in the primary membranes, and that this poison without the microbes themselves is absorbed by the organism. The membranes must therefore be destroyed or disinfected. The author has found that the best way to obtain this result is by using inhalations of carbolic acid in five per cent. solution. *Michael.*

Schemm.—*Degeneration of the Muscles of the Pharynx in Diphtheria.* "Virchow's Archiv.," Bd. 121, Heft 2.

IN the *post-mortem* examination of patients who died of diphtheria the author has found fatty and granular degeneration of the fibres of the muscles, enlargement of the nuclei, hyaline degeneration and atrophy. This degeneration is often so great that it explains the weakness of the heart so often observed.

Michael.

Kalischer.—*Diphtheria and Croup in Prussia.* "Deutsche Medicinalzeitung," 1890, Nos. 80, 81, 82, 83.

EXTENSIVE statistical report extracted from the tables of the Royal Statistical Bureau. The details must be consulted in the original. Of the author's conclusions it is interesting to note that the mortality of diphtheria is much greater in the country than in cities. Ninety-eight and a half per cent. of all cases affected were individuals under fifteen years of age.

Michael.

Bilhaut.—*Communication of Diphtheria of the Pigeon to Man and Child consecutively attacked by the same Disease.* Société de Médecine Pratique, June, 1890.

THE author attended a man, aged forty, attacked with diphtheria, and learnt that the patient, a pigeon fancier, had several birds ill, and had fed one of them from his own mouth. The child was afterwards examined. It was ascertained that it died from diphtheria. The disease was communicated to the son of the patient, aged nine. The child was attacked nine days after his father.

Joal.

Corneille Saint Marc.—*Treatment of Diphtheritic Sore Throat by Atomized Bi-chloride of Mercury.* "Poitou Medical," June, 1890.

THIS mode of treatment gives rapidly efficacious results when employed from the outset of the affection. The swelling of glands, the fever, the pain, and the dysphagia disappear in twelve or twenty-four hours, and cure is complete in some days. The mode of procedure advocated by M. Corneille Saint Marc is as follows:—The formula for the maximum solution is—

Bi-chloride of mercury	...	...	...	0.10 centigram.
Alcohol	...	...	...	100° gram.
Water	...	...	...	900° "

This solution to be placed in an ordinary atomizer, and the steam directed towards the fauces of the patient at first every half-hour, afterwards every hour, and later every two hours. The patient in a few moments feels a sensation of pricking, which makes him cough, and causes the expectoration of false membrane. In spite of the deadly nature of the medicaments, and the considerable quantity used, there has never been the least suspicion of poisoning from the treatment.

Joal.

Gayton.—*A Case of very slight Diphtheria succeeded by severe Paralysis.* "Brit. Med. Journ.," July 19, 1890.

THE patient was a woman, aged forty-one, who had been a nurse in the diphtheria wards of the North-Western Fever Hospital for eighteen

months. The first symptom was paroxysmal convergent strabismus, some loss of power over the hands, slight anæsthesia of the palate, and great albuminuria. About six weeks before she had had a simple sore throat with two minute patches, one on each tonsil, with headache, shivering, and vomiting, but had continued at work. Hyperæsthesia of the forearms followed, then numbness and loss of power in the arms and legs, contraction of the pupils, loss of power of accommodation, knee reflexes disappeared, several attacks of syncope followed, and the motor paralysis became extreme.

The treatment consisted in free stimulation on account of the threatened cardiac failure and the administration of iron and strychnine. The diet throughout was as liberal a one as the patient was able to take. Galvanism was rapidly followed by signal improvement of the motor power.

The four points of interest that apparently present themselves are :

1. The local manifestation of the disease was so slight as to be out of comparison with the great systemic disturbance that ensued.

2. That susceptibility to attack varies in different individuals in a remarkable way is admitted, but in this case exposure to the specific virus was long-continued and constant. Evidence of disordered state of health was wanting.

3. Whether the poison was inhaled, swallowed, or gained access by means of a wound, no distinct evidence existed, but circumstances pointed to the second as the most probable mode of infection.

4. The unusually rapid manner in which the grave paralytic symptoms passed away, leaving the patient in a fairly robust state of health.

R. Norris Wolfenden.

Kohts (Strasburg).—*On Diphtheria.* "Zeitschrift für Klin. Medicin," Bd. 17, Supplementheft.

OF 938 patients treated for diphtheria 439 died (46 per cent.) ; 439 were tracheotomized, with 62 per cent. deaths ; of 499 not tracheotomized 33½ per cent. died. The author relates his experiences of these cases. There is no drug which can be regarded as specific for this disease. Nephritis is often combined with diphtheria or follows it. Sometimes also chronic nephritis, lasting many years, is observed as a consequence of diphtheria. Chlorate of potash in the usual doses only causes intoxication if nephritis or other cause exists preventing its excretion by the body. Paralyzes are to be treated by a stimulating medication. He relates some histories of patients, and concludes with a table of his own cases.

Michael.

Wins.—*Cough and Tracheotomy.* "Revue Générale Clinique et Thérapeutique," October 1, 1890.

THE author warmly recommends the employment of chloroform. Of eleven cases of tracheotomy he has had four cures.

Joal.

Delthil.—*Results Secondary to the Operation of Tracheotomy* "Congrès de Limoges," August, 1890.

M. DELTHIL remarks that after tracheotomy the greater number of patients died in the thirty hours following operation, and this even if the

result at first appeared favourable. The author does not attribute the unsatisfactory issue to a broncho-pneumonia consecutive to the operation. He observes that generally there is not sufficient time for its development before death supervenes. He thinks that such distressing accidents depend upon the absorption of poison by the tracheal wound, an absorption favoured in this very vascular region by the operative injury. *Joal.*

Sszontagh (Buda-Pesth).—*The Value of Tracheotomy in Croup.* "Pesther Med. Chir. Presse," 1890, No. 28.

THE author recommends the performance of the low tracheotomy, and employment of an anæsthetic. He believes the operation is not free from danger, and therefore it should only be resorted to in extreme cases. In young children the prognosis is bad. The results of intubation are not better than those of tracheotomy. *Michael.*

MOUTH, TONGUE, PHARYNX, &c.

Gémy.—*Herpeticiform Syphilitic Chancre of the Lower Lip—Error of Diagnosis.* Société de Dermatologie, July 10, 1890.

A PATIENT, aged twenty-six, contracted in October, 1887, a simple chancre of the balano-preputial furrow. At the end of March, 1890, this patient came for fresh consultation with regard to a small erosion of the lower lip, of greyish surface and irregular border, presenting neither induration, nor enlargement of glands, nor pain. The diagnosis was that of herpes labialis, and a few days later cure was complete. Twenty days later the patient presented a sub-maxillary adenopathy. The lesion was thus described: "Herpes labialis completely cicatrized, its existence only evidenced by a slight pigmentation of the mucous membrane, *with no trace of induration.*" The diathesis of the patient, distinctly strumous, made it probable that the glandular enlargement was scrofulous, and iodide of potash was prescribed. At the end of twenty-five days the patient presented an eruption of incontestably syphilitic roséola, inasmuch as the ulterior development appeared as eroded patches of the tonsils and of the soft palate. The course of events thus established the fact that the pseudo-herpetic eruption of the lip was the incontestable starting-point of syphilis. The error of diagnosis was due to the complete absence of induration, and in the experience of the author extra-genital chancres always present induration, and are of considerable size. *Joal.*

Unna (Hamburg).—*Diseases of the Mucous Membranes of the Mouth.* "Monats. für Prakt. Dermatologie," 1890, No. 7.

IN two cases the author has observed a chronic affection of the lip. The mucous membranes were thickened and affected by a suppurative process with resulting formation of cicatrices. The process lasted some

years and was treated without effect with anti-syphilitic medicaments in the first case. The glands of the neck had not been swollen. Both cases were treated with success by local application of tincture of iodine. The author calls the disease "Bälz's" disease, since Prof. Bälz first described it and its treatment. Similar affections following syphilis must be treated in the same manner. *Michael.*

Du Cane.—*Double Ranula.* "Centrallbl. für Chirurgie," 1890.

A PATIENT suddenly felt a swelling in the mouth, and attacks of suffocation followed. The author found two translucent tumours in the mouth under the tongue, for which he could not find any cause. On incision he removed one and a half ounces of a pyaloid fluid. Cure resulted. *Michael.*

Bandler (Prag).—*Pemphigus of the Mucous Membrane.* "Prager Med. Woch.," 1890, No. 72.

MINUTE description of a case of pemphigus of the mucous membrane of the mouth, pharynx, and larynx. *Michael.*

Birkett, H. S.—*Hemiatrophy of the Tongue of Peripheral Origin.* Transactions of the Canadian Medical Association, 1890.

IN a paper on hemiatrophy the author narrated a case with the following history:—Male patient, aged twenty-three years. The right half of the tongue was markedly atrophied, but tactile sense and the sense of taste were not impaired. The right side of the soft palate was paralysed, and sensation was diminished in the buccal mucous membrane and the nasopharynx. Adduction and abduction of the right vocal cord were very limited. There was persistent myosis of the right pupil. There was a thickened and infiltrated area on the right side of the neck, just in front of the anterior border of the sterno-mastoid muscle. Pressure over this area produced sweating of the right side of the face and dryness of the throat. The nerves involved were the hypo-glossal, the vagus, accessory, the branches of the pharyngeal plexus and the superior cervical ganglion of the sympathetic. These nerves appeared to be involved in a large and painful swelling at the angle of the lower jaw on the right side, which had come on during convalescence from an attack of mumps nine years before. The author's deductions were as follows:—

1. The hypo-glossal was the motor and trophic nerve of the tongue.
2. The glosso-pharyngeal nerve was concerned in the function of taste.
3. The branches of the pharyngeal plexus supplied the mucous membrane of the buccal and nasal pharynx with sensation.
4. The motor nerve of the levator-palati and azygos-uvulæ muscles was probably the accessorius.
5. That the superior cervical ganglion of the sympathetic contained (*a*) dilator fibres to the iris of the same side, (*b*) vaso-motor, (*c*) sweat, and (*d*) special secreting nerve fibres. A most instructive example of peripheral hemiatrophy—a very rare case, well reported, with deductions ably drawn. *George W. Major.*

Brocq.—*Lesions of the Tongue in certain Cases of Syphilis.* "Journal de Médecine et Chirurgie Pratique," July, 1890.

IN smokers who have had syphilis it is not uncommon to meet with a sensitive, even painful, condition of the tongue, in which the presence of furrows, more or less deep, indicates a condition of sclerosis. Mercury and iodide of potassium only aggravate the malady. Brocq has observed that these conditions of the tongue occur in connection with defective gastric digestion, which must be treated in order to obtain satisfactory results as regards the condition of the tongue, local treatment alone being insufficient.

Joal.

Merklen.—*Pulsation of the Soft Palate and of the Uvula in Aortic Regurgitation.* "Gazette Hebdomadaire," Feb., 1890.

LAST year Müller reported four cases of aortic insufficiency, in which the patients presented rhythmical pulsation of the soft palate. Merklen has observed the same phenomenon in a man of twenty-one, suffering from disease of the aortic and mitral valves. The pulsation was especially marked in the uvula, where a rhythmical tumefaction synchronous with the radial and carotid pulse was visible.

Joal.

Bandler (Prag).—*Tonsilla Pendula.* "Prager Med. Woch.," 1890, No. 43.

FROM the left side of the soft palate of a patient twenty-nine years old the author extirpated a pendulous tumour of the size of a nut. Examination showed it to be a supernumerary tonsil.

Michael.

Cuvilier.—*Treatment of Enlarged Tonsils.* "Bulletin Medecale," Sept. 7, 1890.

THE author, resident assistant at the Lariboisière, where the thesis of Desir, in favour of tonsillotomy, was written, is also a supporter of this method of treatment. According to him, cauterization should be reserved for such cases as those of hæmophilia. He advocates the removal of the tonsils with the tonsillotome, using one hand only. The bistoury is very difficult to use in the case of struggling children; cauterization is painful, and the operation tedious. Tonsillotomy should never be performed during a period of inflammation, as severe hæmorrhage is likely to ensue. Before the operation the tonsil is painted with a solution of cocaine; afterwards small pieces of ice should be taken into the mouth.

Joal.

Simanovsky, Nikolai P. (St. Petersburg).—*Case of Leprosy of the Fauces and Larynx.* "Vratch," 1890, No. 38, p. 867.

PROFESSOR SIMANOVSKY describes the condition of the upper-air-passages in a case of typical tubercular lepra, referring to a peasant woman, aged thirty-eight, but looking much older. Her nose, upper lip, and the whole vicinity of the oral orifice were studded with leprous tubercles. There was present chronic nasal catarrh with abundant greyish crusts, blocking the nasal passages, the left nasal cavity showing multiple superficial erosions. On the soft palate, at the junction of the anterior arches, there was seen a slightly elevated whitish patch of the size of a pea, surrounded with a reddish diffuse halo. Similar patches were also detected on the right posterior pillar, above the tonsil, as well as on the posterior aspect of the pillar. The epiglottis was thickened along its free edge, while the middle of its posterior surface was occupied by another whitish elevated

patch. The arytenoid cartilages and ventricular bands were considerably thickened and congested, the true vocal cords being also enlarged and of a greyish-red colour. About the middle of the free edge of the right vocal cord there was situated a flat elevation of a greyish-white colour, with a central depression, caused, obviously, by a great loss of substance. A severe chronic laryngeal catarrh was also present. Waldeyer's "fourth tonsil" (at the root of the tongue) was intensely hypertrophied.

Valerius Idelson.

Aronson (Libau).—*Wounds of the Cavum Pharyngeum.* "St. Petersburger Med. Woch.," 1890, No. 36.

THE patient, fifty years old, was wounded by a gunshot. He fell, and blood came from mouth and nose. Twelve hours later he was quite well. The lip was burned, some teeth broken, and the pharyngeal wall lacerated; on its right side a mass could be seen, but the patient denied feeling any foreign body. On examination with a probe a hard metallic body was found situated in the posterior wall. It was extracted with a Langenbeck's hook, and proved to be a piece of iron (part of the gun) of four and a half centimètres' length.

Michael.

Thorner.—*Imaginary Bodies in the Throat.* "New York Med. Journ.," Jan. 25, 1890.

THE cases are divided into three groups:—

1. Where a foreign body has lodged in the throat but has disappeared, and merely leaves the impression that it is still there.

Here laryngoscopy, rhinoscopy, and palpation must be carefully carried out.

2. Where no foreign body ever has lodged, but where there is some pathological condition of the throat which gives rise to the impression.

A long uvula, adenoids, hypertrophy of the lingual tonsil, large tonsils, varicosities in pharynx, etc., give rise to this, and must be appropriately treated.

3. Where neither of the foregoing causes are at work, but indigestion or some neurosis is at the bottom of the trouble.

This must of course be treated.

B. J. Baron.

Clark.—*Hypertrophy of the Lingual Tonsil.* "Boston Med. and Surg. Journ.," Feb. 6, 1890.

THIS is a good paper on this most important subject; the galvano-cautery is recommended most highly, also compound tincture of iodine, tincture of iodine, and chromic acid crystals. In addition to this, local treatment, anæmia, constipation, etc., must be treated.

B. J. Baron.

Vimon.—*Epithelioma of the Oesophagus.* Société Anatomique, June 30, 1890.

M. VIMON saw in the practice of M. Landrieux a cooper, aged sixty-eight, who for three years had complained of pain in the epigastrium, and of dysphagia, increasing in severity. The oesophageal bougie met with a stricture thirty-one centimètres from the dental arch. Inasmuch as the patient presented aneurismal dilatations of the arteries of the superior limbs, M. Landrieux inclined to the diagnosis of aneurism of the aorta

compressing the œsophagus. The patient died of severe hæmatemesis, and it was thought that the autopsy would confirm this diagnosis, but it revealed the presence of an œsophageal epithelioma, which had ulcerated into the aorta. *Joul.*

Gaucher.—*Cancer of the (Esophagus with Dysphagic Origin.* Soc. Méd. des Hôp., July 20, 1890.

A PATIENT, a man, aged sixty-six, with a history of syphilis, complained at first only of oppression: this was soon followed by attacks of suffocation, sufficiently severe to necessitate tracheotomy. The operation was well supported, but the patient complained a little time after of dysphagia, and at the same time manifested an insupportable distaste to meat, and visibly lost flesh. From these signs, and from the absence of aortic or cardiac lesion, catheterism of the larynx was performed, and a stricture diagnosed 18 centimètres from the teeth.

No instrument could pass this stricture, and the patient died during the month of June from inanition, in spite of rectal alimentation which had been prescribed, and without presenting any signs of asphyxia. The autopsy showed cancer of the œsophagus to be present, which had enveloped both the recurrent laryngeal nerves. No tuberculosis. This observation therefore proves (1) that cancer of the œsophagus, before producing dysphagia and œsophageal stricture, may compress the recurrences, and determine phenomena exclusively laryngeal and necessitating urgent tracheotomy, (2) that tracheotomy in such a case is a palliative operation which may prolong life.

[It also shows the necessity for laryngoscopic examination as a matter of routine, a probably very interesting case having lost half its value for the need of a proper examination of the position of the vocal cords.—*Ed.*]

Joul.

Shendrikovsky, I. I. (Novgorod-Seversk).—*Case of (Esophageal Polypus.* "Meditsinskoe Obozrenie," 1890, No. 19, p. 615.

THE writer records the following rare instance of œsophageal polypus. The patient, an emaciated peasant lad, nineteen years old, had first experienced the sensation of a foreign body in his pharynx about a year and a half before his coming under the author's observation. In the course of time there supervened ever-increasing difficult swallowing and dyspnoea. When examined he was breathing with open mouth, his head bent to the right, and the face turned to the left. His voice was hoarse, with a nasal twang. Neither palpation of the neck nor an ordinary inspection of the fauces and pharynx could reveal anything abnormal. On certain manipulations, however, the lad managed to demonstrate a rosy globular tumour of the size of a pigeon's egg, which emerged from depth behind his tongue, filling up almost the whole faucial passage. On digital and laryngoscopic examination the swelling proved to be a pear-shaped polypus, attached by means of a short pedicle on the left side at the level of the root of the epiglottis, or just at the junction of the pharyngeal and œsophageal walls, the tumour blocking the lumen of the gullet and pressing on the posterior wall of the larynx (chiefly on the left side). Slightly higher up there was seen another similar new growth of the size

of a large pea. The treatment consisted in removing the larger tumour by means of a wire *écraseur* after a preliminary tracheotomy under cocaine (the latter operation was necessitated by attacks of extreme suffocation, induced in the patient by any touching of the parts). Bleeding was but trifling. Except some febrile movements during the first two days, and some pain on swallowing for five days, the after course was quite satisfactory. The tracheotomy tube was removed on the fifth day. On the eighth the œsophageal wound was found cicatrized, and the other new growth greatly diminished in size. On the fourteenth the lad was discharged quite well. On examination a month after the operation, the small tumour proved to have disappeared, and the tracheotomy wound soundly healed.

The removed tumour weighed twenty grammes, the diameter of its pedicle measuring two centimètres. The new growth consisted of dense fibrous bundles with connective tissue cells, and contained scattered areas of caseous degeneration.

Valerius Idelson.

Simanovsky, Nikolai P. (St. Petersburg).—*Case of Foreign Body in the Esophagus—Perforation of the Carotid—Death.* "Vratch," 1890, No. 38, p. 868.

AN elderly gentleman, a retired general, applied to the author on account of hæmoptysis of several days' steadily increasing standing, the expectoration being easy, and the discharge consisting of blood alone. According to the patient's statement, three weeks previously, when eating some *sraza* (a roasted piece of meat, rolled up in the shape of a compact cylinder and stitched together—*lege artis*—with a thread), he had suddenly felt a sharp pain about his throat. Ever since he had been experiencing, on eating, some acute pain on the right side of the neck, slightly below the larynx. A repeated careful examination failed to discover any traces of a foreign body. At the author's suggestion, the gentleman was admitted to Professor D. I. Koshlakoff's clinic, where, on the first night after the admission, the patient was suddenly attacked with an enormous hæmorrhage from his throat, rapidly ending in death. A slightly rusted sewing needle was expectorated during the bleeding. As the necropsy showed, the swallowed foreign body had pierced the right wall of the gullet, just below the thyroid cartilage, and penetrated into the carotid, and lay parallel with the long axis of the vessel, only a small portion of the needle protruding into the œsophageal lumen. In the course of time suppuration set in along the needle track, which led to enlargement of the perforation, etc.

Valerius Idelson.

NOSE AND NASO-PHARYNX.

Suchannek (Zurich).—*Contribution to the Normal Microscopical Anatomy of the Human Organ of Smell.* "Archiv. für Mikroskop. Anatomie," Bd. 36.

FROM very minute microscopical studies the author has obtained the following results:—The olfactory epithelium in adults and older children does not cover continuously the so-called olfactory regions of the upper meatus and the neighbouring portion of the septum; it is limited to irregular localities in the nasal roof. In exceptional cases the region of the olfactory epithelium is already microscopically marked by pigmentation, but it is not to be concluded that the olfactory epithelium is absent if there is no pigment; sometimes there is pigment without olfactory cells. For a certain diagnosis of the presence of olfactory cells the following facts are necessary: (1) A border of delicate hairs (*Riechhärchen*). This is different from the epithelium of the respiratory tract, more vulnerable, and similar to a cuticular layer. (2) A protoplasmic border of 0.015—0.018 thickness, consisting of the peripheral ends of the olfactory cells. (3) The presence of non-pigmented cells with free nuclei. In adults also occur flask-shaped cells, called by the author *Glockenzellen*. (4) A difference exists between the nuclei of the supporting cells (*Stützellen*) and the olfactory cells (*Riechzellen*). (5) The exquisite formation of the zona of the nuclei of the olfactory cells. (6) The presence of a basal-cell border, which is not separated from the cuticular layer by any tunica propria. (7) The pigmentation of the peripheral end of the supporting cells (*Stützellen*). (8) The presence of Bowman's glands and olfactory fibres in the tunica propria and agglomeration of pigment between the glands, nerves, and olfactory fibres. Michael.

Pasquale, A.—*Further Researches on the Streptococcus of the Mucous Membranes in Relation to the Etiology of Nasal Catarrh.* "Giornale Internaz. delle Scienze Med.," Aug. 15, 1890.

PASQUALE, in preparations made by *cultures*, found a diplococcus and a streptococcus smaller than that of Frankel, which is not stained by Gram's solution, and morphologically appears similar to one of those defined by Babes, but it does not grow in gelatine, and is clearly aerobic.

The difference from the streptococcus of Frankel is also evident in regard to inoculations. In the period of its highest development, when inoculated under the skin of rabbits, it produces *gangrene*, and remains inoffensive. Its virulence dies, and it is not present in the secretions of the mouth or pharynx.

Pasquale proposes to call it *rhino-streptococcus*, but he does not believe it to have any specific pathogenic value in *coryza*, though the first of his experiments seems feasible to this opinion. Massei.

Douglas.—*Is the Cure of Chroni. Nasal Catarrh as difficult as has been supposed?* "New York Med. Journ.," Mar. 22, 1890.

THE writer believes that a great deal more attention ought to be given to the condition of the nose in what may be thought pure throat affections, and he finds that affections of the larynx, pharynx, ear, various reflex disturbances, etc., occur as the result of a thickened middle or superior turbinated lying in contact with the septum, or other obstructions in the nose.

He considers that so-called "catarrh" is due to secretions that are normally bland and alkaline, becoming acrid owing to the difficulty that is presented to their leaving the nose, if the mucous membrane or bony part be abnormally adherent. From this it follows that the author attaches more importance to the surgery of the nose than its medication, as he believes that "chronic nasal catarrh" is usually due to nasal obstruction. It is a thoughtful paper and well worthy of perusal.

B. J. Baron.

Brown, Price.—*Hypertrophic Rhinitis or Hypertrophic Nasal Catarrh.*
Toronto Medical Society, November 12, 1889.

DR. PRICE BROWN gives a very concise *résumé* of what is known of the above condition. He favours the galvano-cautery method of treatment as the result of personal experience. He points out the dangers to be incurred when the cautery is too assiduously applied. He notes that in eighty per cent. of his cases (four out of five cases), the hypertrophic condition was confined to the right side. Dr. Price Brown refers to erythema of the nose and face as the result of intra-nasal pressure, but is unable, at the time of writing, to confirm the observation.

George W. Major.

Raulin.—*On Pseudo-Membranous Coryza.* "Revue de Laryngologie," March, 1890.

AFTER a very complete historical review of the question, the author reports four cases from the clinic of Dr. Moure, who has suggested this work. He then remarks that croupous rhinitis is an affection of early life, which most frequently appears spontaneously, and without being contagious. The false membranes are composed of a fibrinous exudation, which differs from that of diphtheria, inasmuch as it contains no specific bacillus. Croupous rhinitis does not run the course of a contagious and infectious disease; it remains limited to the nasal cavities; there is no general infection of the system. The fibrinous exudation is, according to Raulin, caused by a very intense inflammation of the nasal mucous membranes.

Joal.

Chapin.—*Pseudo-Membranous Rhinitis.* "New York Medical Journal," June 21, 1890.

THE author gives details of two cases occurring in children, aged two and three years respectively. The elder child had been well until two weeks previously, when a nasal discharge, coughing, and sneezing were noticed. There was no fever, and the general condition was good. The nose was blocked with membrane, the throat merely congested. On several occasions large masses of membrane were detached by the forceps, some bleeding ensuing. The child's appetite was good, and she

was lively and cheerful throughout, the only inconvenience arising from the nasal blocking. In the case of the younger child the symptoms were the same, the membrane, however, being less abundant and more friable. The urine remained healthy in both children. The author discusses the question of the relation of such cases to diphtheria. He points out that the membrane in the two cases described by him was quite indistinguishable from that of diphtheria, and that the diagnosis really depends upon the presence or absence of constitutional symptoms. He regards these cases as instances of the rare disease, pseudo-membranous rhinitis, as from the entire absence of constitutional symptoms he considers the diagnosis of diphtheria not traceable, and quotes Voltolini, who states that he has never seen diphtheria confined to the nose.

B. J. Baron.

Robinson, Beverley.—*On the Relations of Peripheral Irritation to Disease as manifested in the Throat and Nose.* "Med. Rec.," April 19, 1890.

THE treatment of hay fever by galvano-cautery, saw, and trephine is first considered, and the author believes that too much has been done in this direction.

Next the author asks the question, "Can asthma be cured frequently by the removal of nasal obstruction?" and he answers it in the negative, and quotes his experience of six cases in which asthma might fairly be considered due to nasal stenosis, and in which operations were performed for its relief, and the result was that four of the cases were temporarily relieved; in two cases there was no marked relief.

He approves of sprays of a soothing, cleansing character to the nose, where in asthmatic people they are necessary.

Cases of eye trouble, cured by treating co-existent nasal trouble, are quoted.

In conclusion, the author warns us against excessive intra-nasal operative treatment.

B. J. Baron.

D'Aguanno, A.—*A Case of Anosmia which recovered after forty years.*

"Bollettino delle Malattie de l'Orrechio della Gola e del Naso," No. 5.

A MAN, fifty-four years old, for forty years complained of anosmia, which began after a discharge in consequence of a blow from a stone which he received in the frontal region.

The local treatment of deviation of the septum and mucous polypi, which d'Aguanno undertook, was followed by complete success, as the patient recovered free respiration through the nose, and with it the return of the sense of smell.

D'Aguanno recollects the interesting case of Bauer, quoted by Mackenzie; in this the anosmia disappeared after fifteen years, while in his own case it was present for forty years.

Masséi.

Deschamps.—*Foreign Body remaining for twenty-nine years in a Nasal Fossa.*

Société Médicale de l'Isère, June, 1890.

At the time of examination there was suppuration of the left ear of about a month's duration. The left nasal fossa was totally obstructed by a mass carceous in appearance and exhaling a fetid odour. After cleansing, it

was found that this mass was formed by a body of bony consistence. The patient then gave the following history :—Whilst eating some bouillon, twenty-five years previously, he perceived a foreign body, which he at the time thought was a bone contained in the bouillon, enter the glottis. A paroxysm of suffocation and of coughing had ejected the foreign body towards the nasal fossa, which it entered from behind. The embarrassment due to this foreign body had been at first very marked, and from this time he had suffered from periods of improvement and relapse, of complete obstruction with suppuration, and of partial permeability of the nasal fossa. For more than a year, however, the trouble had been more pronounced. There had been headache and very severe facial neuralgia, and the secretion had become very abundant and offensive. The foreign body was removed, and the microscopical examination proved it to be a fragment of bone.

Joal.

Onodi (Buda-Pesth).—*On the Relation between Nervous Diseases and Nasal Affections.* Wanderversammlung ungarischer Aerzte in Grosswardein, 1890.

A BIBLIOGRAPHICAL review.

Michael.

Bresgen (Frankfurt-o-M.).—*In what manner can Afrosxia of School Children produced by certain Diseases of the Nose and Naso-Pharynx best be prevented?* "Zeitschrift für Schulgesundheitspflege," 1890, No. 10.

POLEMICAL article with special reference to a paper of Kafemann.

Michael.

Michelson (Königsberg).—*On Tuberculosis of the Mucous Membrane of the Nose and Mouth.* "Zeitschrift für Klin. Medicin," Bd. 17, Supplementheft.

THE author gives a review of the literature of these affections, referring to the relation of the anatomical peculiarities of the mucous membrane to the disease, and relates twelve cases of his own observation. In four cases he observed tubercular ulcerations of the septum; in one of a turbinated, combined with phthisis of the lungs, and sometimes of the larynx; in one case a large tubercular ulcer of the hard palate; in another ulcerations of the whole mouth and pharynx; in four cases tuberculosis of the tonsils and arcus palato-glossus; in one a tubercular ulcer of the lingual tonsil. In all cases the diagnosis was confirmed by the result of microscopical examination. The author recommends treatment with menthol; it has an analgesic effect without the danger of intoxication, observed in the use of cocaine. Sometimes good results can be obtained by cauterizing with chromic acid, and by surgical treatment, but it must be allowed that the disease in most cases has a bad prognosis.

Michael.

Bergonié.—*Concerning the Details of Treatment in the Employment of Electrolysis for Deviation of the Nasal Septum.* Congrès de Limoges, Aug., 1890.

THE author has employed electrolysis in nearly one hundred cases with very good results, and communicates the details of treatment. He has been assisted in this work by Dr. Moure. Sometimes the monopolar galvano puncture with the positive pole has been employed, sometimes the bipolar. For the employment of this monopolar positive galvano-

puncture, the manual operation is as follows :—A large electrode (200 cq. 10·20 of superficial area) being applied to the patient, a steel needle is inserted well into the centre of the deviation to be removed. The steel needles used are 0·8 to 1·5 millimètres in diameter, and from 8 to 11 centimètres in length. They are preferable to golden or platinum needles. The pole of the battery connected with the needle is the positive. An electro-motive force of thirty volts as the maximum which can be elicited is more than sufficient. The circuit is formed (1) by the battery of thirty volts ; (2) by the continuous rheostat invented by the author ; (3) by a milliamperemètre ; (4) by the patient. At the commencement the rheostat is placed at maximum resistance, and this resistance is slowly diminished until the strength desired is obtained. The duration of the period of increase of strength of current should not be less than two minutes, in order to avoid giving the patient pain. The return to zero ought to be equally gradual. A slight diminution of strength of current abolishes all painful sensations. The second method employed is the bipolar ; the manual operation is almost the same as in the former case, but two needles are inserted into the deviation, the one positive, the other negative. An electro-motive force of twenty volts is more than sufficient. The quantity of electricity varies, being about sixteen centimètres ; the intensity varies from twelve to fifteen milliamperes. From the clinical standpoint the bipolar method is preferable. *Joal.*

Plicque.—*Study of the Treatment and Diagnosis of Malignant Tumours of the Nasal Cavity.* "Annales des Maladies de l'Oreille," March, 1890.

AN excellent review of the different means of diagnosis and treatment, and of the operative procedures employed in the treatment of tumours of the nasal cavities of a malignant nature, both pediculated and sessile.

Joal.

Kurz (Florenz).—*Simple Method of removing Nasal Polypi.* "Wiener Med. Presse," 1890, No. 44.

THE author removes the polypi like Voltolini, with a sponge, but he fixes the sponge on a Bellocq tube, so that it is applied from behind.

Michael.

Durante.—*Mixed Tumour of the Nasal Fossa—Invasion of the Frontal Lobes—Latent Abscess of the Brain—Sudden Death.* "Archives de Laryngologie," June, 1890.

THE tumour was an epithelio-sarcoma. Autopsy disclosed the cause of death as related in the title.

Joal.

Robertson, W. (Newcastle).—*Two Cases of Rhinoscleroma.* "The Satellite," July, 1890.

THIS disease is of the rarest possible occurrence in England, and the two cases reported by Dr. Robertson are, therefore, of the greater interest. They occurred in two sisters—one aged thirty-three, the other forty. The former became first affected with nasal disease at the age of sixteen, and the latter at the age of seventeen. In the first case it began with a hard, painful swelling of the upper lip, bleeding frequently from a "Keen." Adhesions took place to the gum when the swelling

disappeared (after three years). A large, hard, painful mass developed in the right nostril, giving rise to nasal obstruction, and ultimately the same thing occurred in the left nostril, both nostrils being almost completely obliterated. The affection of the upper gum occurred in dark-red, hard, nodular, painful masses, bleeding when roughly handled. The teeth loosened and fell out. In the last five years the patient has complained of hoarseness, aphonia, and difficulty of breathing. A bulbous enlargement of the nose now exists, with complete stenosis of both apertures with membranous web-like formation. The tissues were unusually hard, and hard cartilaginous-like plates could be felt in the alæ. The uvula was stunted and retracted, and the soft palate pale. The opening of the right posterior nares could not be seen, but the left one was small and contracted. A white, glistening band ran down behind the posterior pillar of the fauces to the level of the epiglottis. The epiglottis was pale, and had a nodular mass on its apex. The laryngeal mucosa was pale and thickened, as well as that covering the arytenoid cartilages. The ventricular bands were pale and enlarged, so as to overlap the vocal cords during intonation. Pale, cicatricial-like bands coursed along their length. The vocal cords were pale yellow, infiltrated and restricted in their movements. A raised band on each side of the mid-line running from before backwards could be seen below the glottis. Sclerosed patches could be seen in the trachea.

The second case presented essentially the same features as the first.

The diagnosis of such a condition has to be made from syphilis and lupus. The former was excluded, and the author regards the absence of "healed-over defects" or loss of parts, the non-occurrence of ulceration or breaking-down of tissue, fætor, or offensive discharge, of relapses, either in the cicatrices or fresh parts, or of concomitant attacks in the skin of the neighbourhood, as distinguishing it from lupus. Microscopic preparations showed the tissues to be infiltrated with an accumulation of spindle and round cells, smaller than granulation cells, which were crowded into the papillæ, the latter being broader than usual. The corium was freely invaded with them, and contained numerous blood-vessels.

R. Norris Wolfenden.

Haffner.—*Counter-Irritation over the Liver in Epistaxis.* "Bulletin Medicales d'Algerie," Feb., 1890.

INTRACTABLE, pernicious epistaxis cured by the application of two blisters to the hepatic region when all other treatment had failed. *Joul.*

Pogorelsky, Metchislav V. (Elisavetgrad).—*Chronic Acid in Habitual Epistaxis.* "Meditzina," 1890, No. 51, p. 413.

THE author details at length an instructive case of a generally healthy school youth, aged seventeen, who sought his advice for most obstinate habitual epistaxis of seven years' standing. The bleeding (invariably from the right nostril) had been recurring in winter time two or three times weekly, but during summer months almost daily, or even several times a day, being always profuse (enough to soak two handkerchiefs on each occasion), and coming under all possible circumstances, and without any apparent

cause. Besides the bleedings, the lad had been suffering every few weeks from temporary swelling, congestion, heat, and itching of the nose with an additional tumefaction of the right nasal ala, the symptoms lasting from a few days to a few weeks, and similarly coming and going without any assignable cause. The youth had been vainly treated with all possible local and general means. On rhinoscopic examination the author discovered a small-sized ($\frac{1}{2}$ centimètre) circumscribed, congested, and softened area, with injected blood-vessels, situated on the right surface of the nasal septum, "corresponding to the lower edge of the cartilaginous portion of the vomer." There was nothing abnormal about the patient's internal organs. Having arrived at the conclusion that he had to deal with a case of *epistaxis ex congestione* ("a professional affection of school life"), and that the said area was the source of the bleedings (which was subsequently confirmed by the discovery of a blood-clot adherent to the spot), the author decided to try a local application of crystalline chromic acid (by means of a button probe, etc.). The cauterization was repeated once or twice weekly. An attack of hæmorrhage occurred on the third day after the first application, after which the boy ceased to bleed from the *right* nostril. After a fifth cauterization, however, he had an attack of epistaxis from his *left* nasal cavity. On inspection of the latter there were revealed three dark red points, occupying exactly the same region as the congested area on the right side of the septum. In view of the fact, the left nasal cavity was also subjected to the cauterization. The treatment continued about two months, a complete cure ensuing. At all events, up to the date (three months have elapsed since the last application), the patient has remained quite well. Even the periodical tumefaction of his nose has ceased to occur.

Dr. Pogorelsky also mentioned two other analogous cases permanently cured by four or five cauterizations with chromic acid. On the whole, he is highly satisfied with the method.

Valerius Idelson.

Brown, Moreau R.—*Suppuration of the Antrum of Highmore.* "New York Med. Journ.," July 19, 1890.

THE author ascribes to "taking cold" a more prominent position in the list of causes of this condition than is generally allowed. Of twenty-one cases, nine arose from this cause. In two of the cases suppuration followed directly upon attacks of epidemic influenza. The symptoms of suppuration of the antrum are described as pain and tenderness (if acute), with sense of fulness and weight over the antrum and pressure against the eye, hyperemia of the ocular conjunctiva and sensitiveness of the teeth, especially on masticating. The pain is worse on stooping and in the mornings. If it arises from dental causes these symptoms are super-added, if from nasal causes, coryza is present. With closure of the natural outlet there is increase of pain and greater tenderness of the face. The formation of pus is announced by a chill, distension of the walls, disturbance of vision (from pressure on the orbital plate), and a tumour-like projection over the thinnest walls. Spontaneous evacuation may occur often through the nose, the irritation producing obstinate turgescence of turbinated bodies, and occlusion of the passage. The discharge diminishes

or ceases gradually as in coryza, or may continue in diminished quantity with cessation of pain, as in dental complications. Discharge now occurs into the nose at intervals during the day, or on stooping, or changing the position of the head. Turgescence of the turbinateds may arise or become chronically persistent. The author believes that hypertrophy of the turbinateds and, possibly, the polypoid growths seen in chronic empyema, are oftener a result than a cause. If the dental arch is the cause, the pus is very offensive, the opposite of what occurs when the cause is coryza.

The author thinks that Voltolini's method of illumination, perfected by Heryng, is a valuable aid to diagnosis. A more valuable and simple test is made with peroxide of hydrogen. The nasal passage is cocaineized, and, with a hypodermic syringe with long canula bent to a right angle within a quarter of an inch of the distal end, a solution of peroxide of hydrogen (1-12 of water) is projected into the antrum through the hiatus semilunaris. If pus is present, it is driven out and fills the nose with white foam. With the use of this test, which the author maintains is very certain, can be differentiated purulency of the maxillary sinus from other sources of pus discharged into the nose. If an exploratory puncture is requisite, it is best done by perforating the facial wall above the alveolus with a small drill. The treatment can, especially in acute cases from coryza, be carried out by injecting dilute peroxide of hydrogen through the natural nasal opening, but most cases require a free evacuation and drainage. The author discourages entering the antrum through the alveolus, the aperture here made not being in the most dependent position, from the projection into the antrum of one or more conical processes in this position (the first and second molar teeth), besides the necessity of sacrificing a tooth. The author favours opening the antrum just below the gingivolabial fold between the upper portions of the roots of the second bicuspid and first molar teeth by a drill, an incision being first made. A gold tube is to be fitted into the proximal end, projecting beyond the mucous membrane, a small strip of gold being attached and fastened to a collar round the tooth. Free drainage is obtained and plugging the tube is averted. The cavity is washed out daily with a saturated solution of boric acid, and occasionally iodine, sulphate of zinc, or sub-nitrate of bismuth are injected. Of nineteen cases, fifteen were diagnosed by the assistance of peroxide of hydrogen.

R. Norris Wolfenden.

Bresgen (Frankfurt-o-M.) — *Dry Treatment of the Nose and its Accessory Cavities.* "Berliner Klin. Woch.," 1890, No. 39.

THE author believes that the dry treatment of the nose, especially of its accessory cavities, marks a great progress. Concerning the antrum of Highmore, he opens it by the method of Krause. He removes the pus by insufflation of air, and, having done that, he applies by Rabierske's insufflator iodol or iodoform. For dilatation of the nose he applies a modified Duplay speculum. The powder insufflated is combined with a bellows moved by the foot. For treatment after galvano-cautery he applies potassium sozo-iodol, and for the treatment of ozæna zinc sozo-iodol.

Michael.

Gerber (Königsberg). — *Contribution to the Knowledge of Pharyngo-Nasal Syphilis.* "Deutsche Medicinalzeitung," 1890, No. 84.

(1) MOST cases of pharyngo-nasal syphilis occur between one to three and eight to fourteen years of age. (2) The mercurial treatment does not cause these tertiary affections. (3) In cases of pharyngo-nasal syphilis the other organs are often healthy. (4) The formation of sagittal furrows is characteristic of the disease. (5) The factor does not occur in all cases, and is not characteristic. (6) Naso-pharyngeal syphilis may exist without affection of the oral cavity. (7) The "saddle nose" is not produced by nasal defects. (8) Rhinoscopical examination is necessary. (9) Local treatment gives good results, but cannot cure the atrophy of the tissues. *Michael.*

Fox. — *Naso-Pharyngeal Carcinoma.* Report of a case, with a consideration of the treatment of this disease. "New York Med. Journ.," Mar. 8, 1890.

THIS rare case was operated on by Annandale's method, but although the patient bore the operation well, the growth quickly recurred, and he soon died. The author recommends removing the growth from time to time with post-nasal cutting forceps and wire snare, along with tonics and disinfecting washes. *B. J. Baron.*

LARYNX.

Singer (Prag). — *Hysterical Tremor, Aphonia, and Stuttering.* "Prager Med. Woch.," 1890, No. 42.

A LADY, sixty-one years old, with these symptoms, was treated without result by preparations of bromine. *Michael.*

Chaput. — *Stridor and Attacks of Suffocation in a Hysterical Male: Larynx Healthy—Spasm of the Trachea—Tracheotomy—Cure.* "Archives de Laryngologie," Aug., 1890.

THE author at first inclined to the diagnosis of syphilis; afterwards anaesthesia of the pharynx made him think of hysteria. He performed tracheotomy on the patient, and cure resulted. *Joul.*

Huguin. — *Laryngeal Spasm.* Union Méd. du Nord-Est, March, 1890.

THE case of a man who lost consciousness, and remembered only after the crisis that he had anything the matter with the throat. In the second attack, death occurred. *Joul.*

Engel, E. — *On the Voice of Children six years of age, and Singing in schools.* Hamburg, 1889.

THE author says that the singing voice cannot be used before its use is methodically learned, and that the voice will be ruined if singing is encouraged before the child has had this instruction. He therefore proposes that the singing in the lower grades of schools, and in children's

institutes, where it is employed with religious exercises, should be omitted. *Michael.*

Moncorgé (Lyon).—*A Study of the Unilateral Laryngoplegias and their Diagnostic Value.* Lyon. Pitrat Ainé, 1890, pp. 90.

IN this interesting monograph the author makes a complete study of paralyzes of a unilateral nature, and sums up his conclusions in the following form :—

Laryngoplegias of the left cord.	Cancer of the œsophagus	} Frequent.
	Aneurism of the aorta	
	Goitre	
	Syphilis	} Less frequent.
	Ataxia	
	Hysteria	
Laryngoplegias of the right cord.	Cold	} Rare.
	Bulbar lesions	
	Cerebral lesions	
	Primary neuritis of the recurrent	} Frequent.
	Aneurism (of the arch, sub-clavian)	
	Cancer of the œsophagus	
	Goitre	} Less frequent.
	Various tubercular processes	
	Syphilis	
	Ataxia	} Very rare.
	Cold	
	Bulbar lesions	
	Cerebral lesions	} Very rare.
	Primary neuritis	

The monograph is illustrated by many cases, chiefly drawn from the clinic of Dr. Garel. It is impossible to abstract it in short form, and, indeed, the work should be read in the original. The recent observations of M. Garel upon the cortical motor centre (which have lately appeared in this Journal in full) are discussed at length, and the author efficiently replies to the adverse criticisms of Semon upon the observations in question. *R. Norris Wolfenden.*

Bandler (Prag).—*Bilateral Paralysis of the Abductors in a Hysterical Patient.* "Prager Med. Woch.," 1890, No. 43.

TRANSITORY paralysis of the postici combined with aphonia. *Michael.*

Proust and Tissin.—*On Paralysis of the Arytenoides Muscle.* "Annales des Maladies de l'Oreille, etc.," March, 1890.

THREE observations, the first on a patient the subject of tuberculosis, the second in the course of catarrhal laryngitis, the third excited by suggestion. In addition to the etiological factors, such as hysteria, which undoubtedly plays an important part, the authors consider that tuberculosis should also be admitted as a cause, acting through a myopathic process. *Joal.*

Tissier.—*Syphilitic Laryngeal Paralysis.* "Annales des Maladies de l'Oreille, etc.," June, 1890.

PARALYTIC affections of the larynx can be, and often are, diagnosing symptoms, being the only phenomena which indicate the existence

and the development of an otherwise latent morbid process; they can be present without concomitant troubles of breathing or of speech, and have, indeed, sometimes only been discovered on direct laryngeal examination. Syphilitic laryngeal paralyses are due to a lesion of the laryngeal muscles of the trunk of the recurrent, of the trunk of the pneumo-gastric, of the roots of the vagus, and of the spinal accessory nerves, of the bulbar nucleus of this last nerve, and probably also to cerebral lesions. Of these lesions, the most frequent are those which attack the left inferior laryngeal, which may be compressed by an enlarged gland, or by a softening gumma; paralyses of bulbar origin, and those of central origin, are less frequent—cases of this kind are included. The author discusses the symptoms of these different paralyses, and the signs by which their various origins may be differentiated, whether muscular, recurrent, bulbar, or cerebral. He adds a few words on prognosis and treatment.

Joal.

Fränkel, E. (Hamburg).—*Researches on the Etiology of Laryngeal Tuberculosis.*

"Virchow's Archiv.," Bd. 121, Heft 3.

THE examinations of the author resulted in finding that all tuberculous ulcerations are produced by bacilli, which have invaded the mucous membrane, and have not been introduced by the lymphatic vessels. The infection with tubercle bacilli is often combined with infection of streptococci. The majority of ulcers observed in phthisical patients are caused by bacilli. The results of these researches, proving that the uppermost tissues are diseased, justify energetic surgical treatment.

Michael.

Bergmann (Riga).—*Laryngotomy and Dilatation of Laryngeal Strictures.*

"Petersburger Med. Woch.," 1890, No. 40.

LARYNGOTOMY is indicated by malignant neoplasms, foreign bodies which cannot be removed *per vias naturales*, perichondritis cricoidea, and deep-seated cicatricial processes. For high situated cicatricial strictures dilatation may be performed.

Michael.

Kossow-Gerronay (Wien).—*Case of Laryngostenosis from a Foreign Body.*

"Wiener Klin. Woch.," 1890, No. 35.

THE patient, thirty-four years old, had hoarseness and cough of four weeks' duration, with dyspnoea and attacks of suffocation. When admitted into the hospital he had such a dangerous attack that tracheotomy was immediately performed. The laryngoscopic examination showed that a foreign body was fixed under the vocal band. Ten days later it was removed by laryngotomy, and proved to be a piece of bone 12 millimètres long. Cure resulted.

Michael.

Sokolowsky (Warsaw).—*Cured case of Laryngeal Fracture.*

"Berliner Klin. Woch.," 1890, No. 40.

A GIRL, twenty years old, having a handkerchief round her neck, was strangled by the wheel of a machine. She experienced great pain in the neck, and dyspnoea, but was able to walk some miles. Next day dyspnoea and cough were present. The neck was swollen, and crepitation, characteristic of emphysema of the skin, could be felt. The laryngoscope

showed a normal epiglottis, and two red tumours covering the entrance of the larynx. Tracheotomy was performed; the larynx was found to be broken, and some fragments of cartilages were removed. Recovery ensued. The canula could not be removed. Dilatation by Schrötter's tube was performed. The tubes could easily be introduced, but if they were removed the opening was closed as before. Laryngotomy proved that the posterior wall of the arytenoid cartilage was absent, and the pharyngeal wall filled the larynx. A permanent canula had to be worn.

Michael.

Ebstein (Göttingen).—*On Cancer of the Bronchi and Lungs.* "Deutsche Med. Woch.," 1890, No. 42.

THE author recognises two forms of the disease, (1) in which only the bronchi are affected, and (2) in which the parenchyma of the lungs is also diseased. It is often not possible to make a diagnosis during life, especially in cases which are complicated with other diseases. The author relates a case combined with diabetes and atheroma. Cancer of the bronchi, found at the *post-mortem* examination, had scarcely given rise to any symptom. In a second case, the symptoms present of disease of the lung were moist sounds and rhonchi, and pain in the left lower region. By probe puncture only blood was removed; but the diagnosis could be made from the presence of a tumour of hard consistence involving a rib. The *post-mortem* examination revealed primary cancer of the lung, secondary cancer of the bronchi and ribs. Amongst the cobalt miners in Schneeberg, commencing lympho-sarcoma of the root of the lung (the so-called "Schneeberger Lungenkrebs") is very often observed. Cobalt seems to have an etiological relation to this disease. In a detailed manner the author relates the great difficulties of diagnosis, which with surety can only be made during life if parts of the tumour can be found in the sputum, or if by probe puncture cancerous masses can be removed.

Michael.

Botey.—*Absorption of Drugs by the Trachea.* Acad. des Sciences, July 21, 1890.

FROM experiments made on animals, patients and himself, the author concludes that medicated injections may be made in the trachea, *per vias naturales*, without the least inconvenience. He has cured a woman suffering from laryngo-tracheal syphilis by injecting fifteen grammes of one per cent. iodide solution each time, repeating the injection seventeen following days.

Joal.

Ijboldin, Lev G. (Moscow).—*Case of Peritracheal Abscess with Consecutive Seropurulent Pleurisy.* "Bolnitchnaia Gazeta Botkina," 1890, No. 19, p. 455.

THE author relates the following rare case: A previously healthy boy, aged two and a half years, fell ill with measles, accompanied from the very onset by laryngitis and enlargement of the lymphatic glands on both sides of the neck. In a couple of weeks the rash faded away, the temperature fell down to the normal, and the glandular swelling somewhat decreased, though laryngitis remained. About the end of the third week, however, the temperature suddenly rose again up to 39°C., while there supervened painful swallowing, troublesome cough, hurried noisy breathing

(42 per minute), aphonia, anorexia, and ever-increasing prostration. Examination revealed, besides enlarged tonsils, intense congestion and tumefaction of the epiglottis, slightly enlarged indolent cervical lymphatic glands, weak quick pulse (160 per minute), occasional scanty dry rales. It was noticed, further, that the boy always preferred to lie on his right side, trying to place his head as low as possible. A few days later there occurred a short-lasting attack of suffocation, caused, apparently, by the boy turning on his left side. A frequently repeated careful examination of the chest gave negative results until the thirtieth day (since the appearance of first symptoms of measles), when there was found exudative pleurisy involving the whole right side of the chest. An exploratory tapping drawing out some sero-purulent fluid, excision of a piece from the right seventh rib was performed at the spot, and a large quantity of a similar, but slightly fetid, liquid removed. About twelve hours after the operation the patient died from paralysis of the heart.

At the necropsy there was unexpectedly found an oblong sinuous purulent cavity, six centimètres long, situated along the right side of the trachea and œsophagus, at the level of the lower cervical vertebrae, its walls being formed by hardened, blackish cellular tissue, with scattered here and there whitish, similarly hard lymphatic glands of various sizes. The walls were coated with a scanty dark purulent matter, but otherwise the cavity was almost empty. The right pleural sac presented the usual signs of acute, as well as chronic, inflammation, the lung being collapsed and nearly airless.

According to the author's theory, the attack of measles had given rise to suppuration and disintegration of the peritracheal glands, the abscess subsequently burst into the corresponding pleural sac, which was rapidly followed by sero-purulent pleurisy, etc.

Valerius Idelson.

NECK, &c.

Cnopf.—*Rare Tumour in a Child.* "Münchener Med. Woch.," 1890, No. 36. DESCRIPTION of a colossal cystic goitre in a new-born child. The diagnosis was made by puncture. Operation not yet possible. *Michael.*

Charcot.—*Clinical Study upon Sporadic Infectious Goitres.* "Revue de Chir.," Sept., 1890.

THE thyroid gland may be enlarged under the influence of certain general affections, such as typhoid fever, rheumatism, ague, etc. Typhoid thyroiditis is pretty rare; it commences at the beginning of convalescence, and may end in resolution or the formation of abscess. Typhoid goitre occurs especially in individuals who have in infancy had large necks, or who belong to goitrous families. Charcot then relates two cases of rheumatic thyroiditis. Does there exist a paludial thyroiditis? The author has seen four such cases at the Tunis hospital, and similar cases have been met with in America, Italy and France.

The thyroid gland may be the seat of a localization, moreover, of other diseases, such as glandular enlargements, variola, tubercle, septicæmia, the infectious miasm behaving towards the thyroid gland as towards other tissues.

Joal.

Mathieu.—*A Case of Exophthalmic Goitre consecutive to Ablation of the Ovaries.* "Gaz. des Hôpitaux," June 19, 1890.

THE patient was a young widow of twenty-six, whom the author was called upon to treat for repeated metrorrhagia. The ovaries were removed, and a prompt cure resulted. Five or six months after the operation she developed undoubted signs of Graves' disease (exophthalmos, goitre, palpitation, rapid pulse and tremor), with attacks of heat and congestion and enlargement of the thyroid, which appear in crises regularly each month, when the patient's catamenial periods should occur. There is no other sign of menstruation. The patient had no sign of Graves' disease before the operation was undertaken. The author thinks it is possible to attribute the result not so much to the castration itself as to fear, emotion, and mental excitement. The author incidentally mentions that he recently examined a young woman in whom accentuated Graves' disease supervened upon the agitation "de la première nuit de ses nocces," which produced cardiac palpitation, which has lasted ever since.

R. Norris Wolfenden.

Renault. — *Treatment of Exophthalmic Goitre by Faradism.* Thèse. Paris, 1890.

THE author explains the mode of treatment carried out by Dr. Vigouroux at the Salpêtrière, a treatment well known and advocated by Dr. Charcot.

Joal.

Scheele. — *On Sudden Death from Hyperplasia of the Thymus.* "Zeitschrift für Klin. Medicin.," Bd. 17, Supplementheft.

A CHILD, sixteen months old, suddenly died. The *post-mortem* examination revealed a great over-fulness of the venæ jugulares et axillares. The thymus was much enlarged. The recurrent nerve was embedded in some lymphatic glands of the size of a pea. The larynx was in the position called by Virchow "Erstickungsstellung" (asphyxiative position). The cartilages of the trachea were normal. The author resumes that the child certainly died from suffocation, but agrees with Gerhardt, Steffen, Henoch, and Morell Mackenzie that the thymus cannot be the cause of fatal spasm of the glottis. Some experiments performed by the author confirm the results of the experiments of Friedleben that the enlarged thymus cannot produce suffocation. But it is possible that death was caused by pressure of the lymphatic glands upon the recurrent nerve.

Michael.

THE TENTH INTERNATIONAL MEDICAL CONGRESS, BERLIN

4th to 9th August, 1890.—(Continued from p. 486).

SEVENTH MEETING.

Laryngological Sub-Section.

COMBINED WITH THE PHYSIOLOGICAL AND NEUROLOGICAL SUB-SECTIONS IN
THE BERLIN PHYSIOLOGICAL INSTITUTE.

FELIX SEMON (London) and VICTOR HORSLEY (London). *Experimental Demonstration of the Centre and Peripheral Motor Innervation of the Larynx, and a Theory of the Motor Innervation of the Larynx.* While Horsley prepared his experiments, Semon spoke of the difficulties of physiological demonstration in public. The resistance of the animals to narcotics, the individual resistance against operation, and the influence of shock may easily disturb the best prepared experiments. A failure, therefore, of experiments which can be successfully made in the laboratory would prove nothing against facts.

The larynx has two widely different functions, viz., respiration and phonation. Of these the former is mainly automatic, though not entirely beyond the influence of purposive or volitional influence, whilst the latter is practically purely volitional, and only in certain acts, such as laughing and crying, is the result of reflex influence. According to this principle, we have to investigate the respiratory and the phonatory representation of the larynx in the medulla oblongata. (a) There exists a reflex abductor tonus of the vocal cords keeping the glottis wide open, whilst the thorax continues its rhythmical movements. Excitation of the upper part of the floor of the fourth ventricle evokes persistent abduction of the cords, whilst the thorax continues to rhythmically expand and contract. The bulbar representation of the larynx is bilateral, both vocal cords moving together for inspiration and expiration on stimulation of the respective portions of the bulb on one side only. (b) Phonatory representation: Immediate closure of the glottis is observed upon excitation of the ala cinerea and the upper border of the calamus scriptorius. Excitation of the restiform body, and its inner border, in a vertical line opposite of the lower half of the fourth ventricle, also produces abduction of the vocal cord of the same side.

The authors adhere most firmly to the belief that in the great majority of all cases of progressive organic lesion of the laryngeal nerves the result is primary paralysis of the abductor apparatus, and not a primary contraction of all the laryngeal muscles. The character of the representation in the cortex cerebri is acceleration of the rhythm and intensification of the respiratory movements by exciting the precrucial gyrus. Concerning phonation, the authors conclude unilateral irritation produces bilateral effect. Clinically, in any unilateral affection of this area spasms of the glottis, *i.e.*, bilateral adduction of the vocal cords, may occur, *e.g.*,

laryngismus stridulus. Unilateral destruction produces no effect. There is, therefore, no such thing as unilateral paralysis of a vocal cord from lesion of a cerebral hemisphere. This is made evident by the fact that motor aphasia is not identical with aphonia. Also after extirpation of the entire hemisphere the vocal cords continue to move perfectly bilaterally in respiration, and on stimulation of the phonatory centre of the opposite side prompt bilateral adduction occurs. Powerful or long-continued excitation of the laryngeal area produces true epilepsy of the vocal cords. So it is proved that the epileptic cry represents a stage in the cortical excitement popularly termed an epileptic fit. Exposing the basal ganglia and internal capsule, the authors have found that here the respiratory fibres are contained in the anterior limb, and in the region of the genu. Here also are the phonatory fibres.

HOOPER (Boston). *Methods of Demonstrating Laryngeal Movements.*—The author was the first to prove that, in a slightly etherized animal, irritation of the recurrent produces closure of the glottis, and, in deep etherization, produces dilatation. The same effect is produced if the recurrent is cut and its peripheral end is irritated. The ether produces its effect not only through the cerebrum, but also upon the nerves. He therefore concludes that there are biological differences between the two groups of muscles. The ether paralyses first the voluntary muscles, secondly, the automatic muscles. The musculus crico-arytenoideus posticus must be looked upon as an automatic muscle. The author showed the results of his experiments upon an etherized animal in a very instructive manner.

SEMON remarked, concerning the relation of the larynx to the central nervous system, that in functional diseases, such as hysteria, the adductors are affected first, and that there exists in the cerebrum of the dog a phonatory centre discovered by Krause, and also found by Semon and Horsley. In all animals irritation of one centre produces bilateral contraction. After destruction of the phonatory centre and extirpation of a whole hemisphere, the reflex action of the glottis continues. Horsley performed some experiments proving these facts.

ONODI had proved that the crico-arytenoidei postici lose their electrical contractility sooner than the other muscles of the larynx. The muscoli vocales interni preserve it longest.

DUBOIS REYMOND mentioned the inspiratory phonation observed in men and animals.

EIGHTH MEETING.

HERYNG (Warschau). *Can Laryngeal Phthisis be Radically Cured by Endo-Laryngeal Surgical Treatment?* A great many of the patients suffering from laryngeal phthisis certainly die from the disease of the lungs, independently of the laryngeal affection, and a great many of the tubercular affections of the larynx are certainly incurable, but we must do the best possible to diminish pain for such patients, to prolong their lives, and to give them the chance of radical cure. Upon these grounds laryngeal treatment must be recommended.

Of twenty-eight patients described by the author in 1887, twelve have

died, of ten the present condition is unknown, and six are yet under treatment. Three of the patients who subsequently died remained without recurrence. Since this time the author has treated thirty-seven cases by his method. In thirty-two cases the ulcers have been cicatrized for a shorter or longer time. Five cases are definitely cured.

More than thirty authors have since that time applied the method, published their results, or written them in letters to the author. He showed a lady, forty-eight years of age, treated by him in 1886 by curettement. The local condition and the general health of the lady is now very good. He also showed a specimen, proving the possibility of cure of the severest form of laryngeal phthisis. The patient was curetted in 1886, and has since died from pulmonary phthisis. In another specimen taken from a patient who died from influenza pneumonia the formerly infiltrated posterior wall was transformed into a strong cicatrix, in which neither tubercles nor bacilli could be found with the microscope. Indications for surgical treatment are circumscribed infiltrations of the posterior wall, infiltration of the ventricular bands, ulcers and tubercular tumours. The author concludes that perfect cure is rarely observed, but long-lasting improvement is often obtained by surgical treatment.

DISCUSSION.

M. SCHMIDT has obtained seven cures out of sixty-three cases treated by curettement.

MASSEI treats tuberculosis by iodoform and inhalations of sublimate.

SCHNITZLER prefers the more expectant methods.

GLEITSMANN showed photographs of a case of pharyngeal tuberculosis which had been cured.

SCHIECH applies surgical treatment only in selected cases.

ROSENBERG recommends applications of menthol.

SCHRÖTTER recommends surgical treatment only for tubercular tumours, and does not believe that radical cure is often obtained.

B. FRAENKEL says that it is often rather difficult to differentiate the diseased parts from the healthy parts. The difficulty here is greater than in cases of cancer.

LAZARUS accentuates the importance of general treatment.

KRAUSE accentuates the importance of the destruction of the tubercular deposit, and the tolerance of the larynx against operations.

SCHLIMMANN (Berlin). *Local Treatment of Laryngeal Phthisis.*—As prophylaxis against laryngeal phthisis, the author recommends that patients with diseased lungs shall use for a long period, internally, creosote and menthol, and shall also employ inhalations of menthol or cresoline. He recommends massage for the treatment of pareses and catarrhs; for the local treatment of the ulcers he applies lactic acid and pyoktanin for severe cases, and in patients who resist treatment he recommends the application of electrolysis or surgical treatment.

PRĘDZEBORSKI (Łódź) showed a patient, whose laryngeal phthisis was cured by Heryng's method.

Syphilis of the Upper Air Passages.

Papers read by SCHRÖTTER (Wien), LEFFERTS (New York).

SCHRÖTTER.—Of 1465 throat patients in his clinic the number of syphilitics was 16·8 per cent. Of these syphilitics the nose alone was affected in 1·1 per cent. ; complicated with other manifestations 1·7 per cent. ; the pharynx alone in 5·4 per cent. ; complicated with other affections in 8·6 per cent. ; the larynx alone in 6·4 per cent. ; the trachea and bronchi in 0·2 per cent. Amongst the out-patients the proportion of syphilitics was 2 per cent., but the number varied in different years. In the clinic for syphilitics of Prof. Lang, in 36 per cent. of the cases affections of the pharynx and the air passages occurred. Cicatrices were observed from the slightest to the highest degrees of malformations and stenoses. Catarrhs and erythemata, not always easily differentiated from one another, are often observed in secondary disease, sometimes also papules and condylomata. The gravest form of syphilitic affection is the gumma. Ulcers are observed from the slightest erosions to the most extensive loss of substance. A very dangerous affection is perichondritis ; by its tendency to ankylosis it destroys the function of the arytenoid cartilages. To cure cicatrices and ankyloses, only one method is effectual, viz., the dilatation invented by the author. Sometimes this method may be combined with surgical treatment of the cicatrices and adhesions. Processes similar to those in the larynx are observed in the nose, and may produce here the greatest malformations. Sometimes it is possible to prevent the malformation by the introduction of hard rubber tubes.

LEFFERTS described his method of dilatation of acute and chronic strictures. He applies modified O'Dwyer tubes. He has obtained very good results also in cases where the strictures were of very high degree.

NINTH MEETING.

SCHNITZLER (Wien). *Combination of Syphilis and Tuberculosis in the Larynx.*—The combination of these two diseases occurs much oftener than is described, and the author has observed sometimes both forms simultaneously in the same patient, and also the transformation of tubercular into syphilitic affections and *vice versa*. He reports three cases : (1) Combination of both forms. Death from phthisis florida. The *post-mortem* examination showed syphilitic cicatrices and tubercular ulcers of the larynx. (2) Ulcers on the soft palate and the vocal bands. Two years later, adhesion of the vocal bands ; infiltration of the lungs. Cure of the stenosis by endo-laryngeal operation. Improvement of the general health by inunctions. Three years later, death. *Post-mortem* examination : cicatrices of the palate, polypoid degeneration of the vocal bands, chronic degeneration of the lungs, amyloid degeneration of the liver and the kidneys. Osteitis gummosa. (3) Ulcers of the larynx, with great loss of substance, occurring five years after a syphilitic infection ; cure by inunction. Some months later gummatous processes, infiltration of the lungs, hectic state, hæmoptysis and death. The combination of the two diseases can be declared by the proclivity of a diseased organ to be infected, also by a

new affection being a *locus minoris resistentie*. Syphilitic cachexia inclines to tubercular infection, and in a tubercular patient an acquired lues will have a grave process. The diagnosis can be made by inspection of the pharynx, naso-pharynx and larynx, anamnesis, presence of bacilli, and the effect of a specific treatment on the syphilitic part of the disease. The prognosis is grave, but sometimes improvement can be obtained. In spite of the tuberculosis, antisyphilitic cure must be undertaken if the general condition of the patient improves greatly under iodide of iron.

BRESGEN (Frankfurt-o-M.) showed a modified Rabierske powder-insufflator, with foot bellows and tube for the accessory cavities of the nose, and a Duplay speculum with long branches.

REICHERT (Berlin) showed (1) a long bilateral nasal speculum, (2) a nasal knife, (3) a nasal saw, (4) an instrument for adenoid vegetations, (5) a modified galvano-cautery handle, (6) a guillotine for tumours of the posterior laryngeal wall.

CHOLEWA (Berlin) showed a palate hook.

ONODI (Buda-Pesth) referred to a case of chronic fibrinous pharyngitis.

TENTH MEETING.

Acute Infectious Inflammations of the Pharynx and Larynx.

Introduced by MASSEI (Naples), M. SCHMIDT (Frankfurt-o-M.).

MASSEI spoke of erysipelas of the larynx, which he was the first to describe. It begins with acute swelling of the pharynx and larynx. The mucous membrane is of a dark-red colour. The patient has a high degree of fever, and the curve of the fever resembles that of other forms of erysipelas. The patient suffers from dysphagia, so that swallowing is often impossible. In severe cases there also arises a great degree of dyspnoea, more inspiratory than expiratory. The laryngoscope shows cedema of the mucous membrane of the larynx. The swelling has a wandering character, characteristic of erysipelas, and often changes its locality. The disease may be primary or a complication of general erysipelas. The diagnosis can be verified by culture of the specific microbes. Prognosis is doubtful, because the dyspnoea may become dangerous, and intense adynamia may terminate the life of the patient. The treatment consists in the application of ice, inhalation of sublimate, stimulants, and in great degrees of stenosis tracheotomy must be performed.

SCHMIDT.—By Jurgensen and Senator a highly dangerous disease of the throat is described, which has the following complex symptoms:—It begins with slight fever and difficulty of swallowing. Then follows swelling of both tonsils and the whole neck, and the cervical glands swell to colossal dimensions. Then follows unconsciousness, and in a few days the disease generally ends in death from adynamia. The disease must be regarded as a consequence of infection by micro-organisms. It is a form of septicæmia. The treatment must be stimulating. If the swelling extends to the larynx, tracheotomy may be necessary.

THORNER reported one case of erysipelas of the larynx and two of pharyngitis phlegmonosa.

SCHECH had also observed both affections.

B. FRAENKEL believed that erysipelas of the larynx and phlegmon are two different affections.

SEMON believed that erysipelas laryngis, phlegmon of the pharynx, and angina Ludovici are different forms of the same infection by streptococci.

CHIARI reported a case of phlegmon of the epiglottis consequent upon wounding it by a piece of bone.

BREBION (Lyon). *On Adenoid Vegetations.*—If the adenoid tissue in childhood is not hypertrophied it disappears in the period of puberty, but if it is hypertrophied it persists during the whole life, but undergoes fibrous degeneration.

LUC (Paris). *On Adenoid Vegetations at Different Ages of Life.*—Adenoid pharyngeal tumours disappear sometimes, but not always. They are often seen in adults, and may also here cause troubles of hearing. The degeneration is caused by arterio-sclerotic processes in the vessels of the tumour.

MICHELSON remarked that ulcers of the septum which have the size of furrows always have a syphilitic origin.

MASSEI had seen adhesions of the vocal bands following syphilitic plaques and sub-cordal gummata in children.

PINIACZEK referred to a case of cicatricial laryngeal stenosis cured by resection of a part of the cricoid cartilage, and subsequent dilatation.

SCHMIDTHUYZEN (Aachen). *Bronchial Stenoses following Syphilis.*—The author has observed two cases of this disease. In the first case there was a greatly stenosed trachea, so that it was nearly impossible to introduce a fine probe. The highest degree of stenosis was at the bifurcation. In the second case the principal bronchus of one side was so stenosed that no air could enter the lung. In this case it was not possible to make a diagnosis *intra vitam*.

MARCEL (Bucharest). *Hysteria and Nasal Disease.*—A lady, twenty-seven years old, had for seven years singular hysterical attacks. They began with a feeling of tickling in the left nasal passages, ascending to the eyebrows and descending to the neck, followed by a sensation of suffocation, and then followed the real attacks, which consisted of convulsions and unconsciousness, lasting twenty-four hours. On removal of a polypus from the left nasal cavity the condition was entirely cured, and at the same time the relation between polypus and reflex neurosis was proved.

DALY (Pittsburg). *Relation between Nasal and Ear Diseases.*—The author referred to the result of a collective study upon the relation between nasal and ear diseases. The greater proportion of all affections of the ears arises from nasal disease. Every physician will have occasion in his practice to confirm this relation.

CAPART (Brussels). *Rare Pharyngeal Tumours.*—(1) Gumma of the left tonsil resembling a cancrroid, cured by antiseptic treatment; (2) sarcoma of the right tonsil and the base of the tongue cured by arsenic.

M. SCHMIDT had always observed cure by arsenic in sarcomata.

CHIARI mentioned that the arsenic treatment was recommended by Winiwarter.

R. WAGNER (Halla-o-S.). *Median Position of the Vocal Cord in Recurrent Paralysis.*—This position is produced neither by the muscles innervated by the nervus laryngeus nor by the crico-arytenoideus lateralis, but is entirely the effect of the musculus crico-thyroideus. The author showed the results of his experiments upon animals in instantaneous photographs of the larynges of these animals. His experiments were conducted in Exner's laboratory.

GRABOW (Berlin). *Contribution to the Innervation of the Larynx.*—The lower fibres of the vagus, and not so often as is believed the accessorius, preside over the motor functions of the larynx. The author reported numerous physiological experiments to prove this thesis.

PAUL KOCH (Luxemburg). *Tracheal Tumours.*—The author gave a careful review of the literature of tumours of the trachea, and related two of his own cases. The first patient had a tumour of the size of a nut, nearly closing the trachea. Tracheotomy was performed, and death followed from hæmorrhage from the tumour. The *post-mortem* examination showed it to be an angio-sarcoma. The second patient did not allow tracheotomy and died from suffocation. As *post-mortem* examination was not performed, nothing could be said as to the nature of the tumour. In most cases extirpation *per vias naturales* is impossible and tracheotomy must be performed, followed by extirpation of the tumour.

BRYSON DELAVAN (New York) showed (1) a new instrument for adenoid vegetations, and (2) the original tonsillotome of Physick.

CASSELBERRY (Chicago). *Laryngeal Cysts.*—The author had operated upon a cystoma of the larynx containing eight cubic centimetres of fluid. The tumour was situated on the left arytenoid cartilage. Such tumours must be regarded as retention cysts. Sometimes they become very large, and may cause dyspnoea and make tracheotomy unavoidable.

KAYSER (Breslau). *On a special movement of the Arytenoid Cartilage in recurrent Paralysis.*—Beyond the movement executed by the arytenoid cartilages in recurrent paralysis to the diseased side by the contractions of the muscoli transversus and obliqui, another form of movement is also observed, called by the author *Pendel-zuckung*. This is a reflex movement, like the knee and foot phenomena. Further observations will show if this movement can be used for diagnostic purposes.

PINIACZEK (Krakau). *Examination of the Trachea through the Tracheal Fistula.*—The author showed instruments described by him, tubes similar to Zaufal's nasal tubes, serving for examination of the trachea. On introducing them it is possible to observe the deeper parts of the trachea, and sometimes the first portion of the large bronchi. It is thus possible to see foreign bodies in the trachea, croup membranes, neoplasmata, cicatricial stenoses, compression stenoses, and pathological weakness of the walls. Operations for these different conditions can be

performed by the help of the tubes. The author showed a foreign body removed from the bronchus by the help of his tracheal speculum.

TOEPLITZ (New York). *A Rare Case of Laryngeal Tumour.*—The author removed a large white tumour from the right vocal cord. The microscopical examination showed it to be a chondro-sarcoma. The patient has been four years without recurrence.

MASSEI showed a horizontal mirrorstroboscope. By very well painted drawings introduced into the apparatus it is possible to demonstrate the movements of the glottis, paralysis, and the movements of floating neoplasms in a very distinct manner. *Michael.*

ASSOCIATION MEETINGS.

American Laryngological Association.

Baltimore, Thursday, Friday, and Saturday, May 29, 30, and 31, 1890.

President—Dr. JOHN N. MACKENZIE.

(Continued from page 491.)

DISCUSSION ON DR. KNIGHT'S PAPER.

Dr. BOSWORTH differed from Dr. Knight in saying that sarcoma of the naso-pharynx demanded the more radical operation. The only case of sarcoma of this region he knew followed by recovery, was one in which the patient was treated by the mildest measures only. If we treat sarcoma as a local disease, we are on safe ground. At present we can get at all parts of the nose without resorting to the operations mentioned, and the old operations are no longer necessary. The best results have followed the plan of attacking the growth through the nose, and by careful manipulation, taking it away piecemeal. The cold wire snare is best in his experience. In carcinoma no form of treatment is of service.

Dr. MULHALL recorded a case resembling Dr. Knight's. It was of small-celled sarcoma invading both nostrils, and appeared to have developed twelve months after a fall, which injured the nose, in a man of fifty. When seen by the speaker, the patient presented a mass of bleeding fungous material projecting from both nostrils. Hæmorrhage was caused by touching it. The speaker advised removal piecemeal with the galvano-cautery, and discountenanced any radical operation. After clearing one nostril the patient ceased to attend. He died in about four months with repeated hæmorrhages and inanition, the disease lasting about a year altogether.

Dr. BOSWORTH remarked that the case was reported as one of "fibro-sarcoma," and asked if there was any change in the character of the tumour, or its appearance, corresponding with the occurrence of malignancy.

Dr. KNIGHT stated that while under observation the neoplasm was

fibro-sarcomatous. In speaking of the "radical operation" he referred not to Chassaignac's or Ollier's, but rather to one like Maisonneuve's, which exposes the region to its utmost limit. It may be true that carcinoma is better let alone, but is it not equally true that a policy of non-interference is more judicious than a prolonged series of nibblings at the surface of a growth which is steadily progressing beyond our reach?

Dr. H. L. SWAIN read a paper upon *Adenoid Tissue in the Naso-Pharynx and Pharynx*. Early in the uterine life of man, the deposit of small cells underneath what is then the epithelium of the naso-pharynx and pharynx begins, accompanied or at times preceded by a slight furrowing of the membrane; very soon follows the wandering outwards of the same cells through the epithelium. At a later period thickening takes place and the development of follicles. When life is extra-uterine, all parts grow on apparently alike till puberty or adult life. Then activity subsides and gradual retraction takes place. Thus in late youth commencing atrophy of the pharyngeal tonsil takes place; later on, of the faucial tonsil, and well into adult life the lingual tonsil still remains unatrophied. This agrees with clinical observation.

In all these structures, the formation of follicles occurs after the deposit of small cells, and in the lingual tonsil pathological conditions favour the earlier development of the follicles, and the more hypertrophied it becomes the more follicles it contains. In the atrophy of the lingual tonsil follicles first break down and disappear; then occurs a general diminution in the number of cells in the infiltrating mass under the epithelium. The author refers at length to the observations of Killian as to the development of the pharyngeal tonsil, and he agrees with this embryologist in the statement that the real bursa pharyngea, as described by Tornwaldt and Luschka, has only a somewhat inconstant embryonal existence, and does not persist as such in the adult or even long into childhood. It is not the dilated end of the hypophysis cerebri or rather the canal from it to the pharynx. The true bursa exists before the tonsil proper begins, and is not the recessus pharyngeus medius of the adult.

The faucial tonsil seems to begin about the same time or a little later than the bursa pharyngea of Killian. The follicles are already developed at birth, according to Kölliker. In the lingual tonsil, infiltration probably antedates the development of follicles by a considerable interval. In animals the development of these tonsils begins almost invariably at a much later period than the others. The author referred to Killian's extraordinary theory of the function of the tonsils being to manufacture leucocytes for the purpose of destroying bacilli, and seemed to favour the idea that the leucocytes of the tonsil exert some protective influence against invasion of the system by micro-organisms.

DISCUSSION.

Dr. BOSWORTH: Dr. Swain's paper is very interesting and timely. Just now considerable attention is directed to the lymphatic tissue in the vault of the pharynx, the base of the tongue, and in the fauces. What are its functions? what its pathological relations? but, prominently, what constitutes a pathological condition of this structure? I confess that I do not look with much favour

upon the speculations which have been advanced as to the function of this tissue. For instance, when Scanes Spicer says that it is placed there to drink up superfluous fluid, it does not, in my opinion, rise to the dignity of a physiological theory; nor, when Killian says it is there in order to destroy micro-organisms, do I regard it as much more rational. It is very evident that it can act upon only a very small part of the inspired air, and can exercise only a very slight effect in this way. In diseased conditions it might, on the contrary, act as traps for pathogenic micro-organisms, and afford a suitable culture ground, as in diphtheria. As a matter of fact, many of the diseases of young children are contracted in this way, such as scarlet fever, measles, diphtheria, follicular amygdalitis, etc. All of these are evidently due in many cases to the fact that these disease germs are introduced and developed there. Again, in confirmation of Killian's theory, may it not be that this function of destroying organisms is itself destroyed by the diseased condition of the glands which arrests their function? Another important question to be solved is, What constitutes a diseased condition of the adenoid tissue in the vault of the pharynx? Are adenoid growths abnormal? Are the small pearly bodies so often seen there evidence of disease?

Again, the manifestations of a catarrhal process in this region are different at different ages; up to fifteen or twenty years of age this region is the most frequent source of a catarrhal discharge; from twenty to forty, intra-nasal disease is the rule; while from forty to sixty it is back again in the naso-pharynx. In children the disorder is due to hypertrophy of the lymphatic structures in the vault of the pharynx; in adult life the adenoid tissue is shrunken up, and atrophic changes occur. Another problem is, Where does all the mucous secretion come from in cases of naso-pharyngeal catarrh? Adenoid tissue does not secrete mucus. What is the possible source of the discharge? It is possible that the pain may be due to the shrinkage of the adenoid tissue which imprisons the terminal fibres of nerves; but where does all the secretion come from? I do not believe Schwalbach's theory; it is not reasonable, and I cannot accept it.

Dr. LANGMAID: What is meant by the statement that when there is a demand by the blood for more leucocytes there is a diminution of adenoid tissue?

Dr. BOSWORTH: I should like to ask, also, if the author based the remark that adenoid tissue function was to make blood upon any personal observation or experiment?

Dr. SWAIN: In answer to Dr. Langmaid, the only observations I know of are those made by Stöhr and two made by myself. Stöhr found that in a case of pyo-pneumo-thorax, upon examination of the throat, there were hardly any follicles in the adenoid tissue; and, secondly, that the number of leucocytes lying in the epithelium was very much less. In a case of leucocythemia he made similar observations, although the appearances were not so well marked. My own observations were in a case of bone tuberculosis and in one of pure pulmonary tuberculosis. I found in the lingual tonsil there was great diminution and atrophy of gland tissue at the base of the tongue. The conglobate glands were very much atrophied.

With regard to the point raised by Dr. Bosworth concerning the source of the great quantity of secretion, in the observations made by Killian and in my own, there was no connection found between the amount of increase in the adenoid tissue and that in the racemose glands, increase in the latter not always following the same in the former. As to the explanation referred to by Dr. Bosworth, why it was necessary for the lymphoid tissue to go through this process of diminution and atrophy, I cannot say anything except that it *is* necessary. We see it so much in our cases that we must believe it to be the inevitable course of adenoid tissue in this situation to undergo this degeneration and atrophy. I may not have made it very clear in my paper, but I think the point made by Killian a very important one.

Dr. E. FLETCHER INGALS read a paper entitled *Supplemental Report on Cartilaginous Tumours of the Larynx, and Warty Growths in the Nose*. At the 1888 meeting he had reported the case of a young man, suffering from a sub-cordal cartilaginous tumour growing from the thyroid cartilage, and which he had been treating with local applications of

chromic acid. It was eventually completely destroyed, and the patient cured. Twelve or thirteen applications of the acid were made in all, at intervals of three weeks to several months. He urged long-continued trials of the acid in cases of laryngeal growths, which cannot be removed with the forceps. A case of warty growths in the nose was also reported at the last meeting in 1889. They were being cauterized by chromic acid, nitric acid, nitrate of silver or the galvano-cautery. They continued to recur. Thuja occidentalis tincture was then given in teaspoonful doses three times daily, and it was applied twice daily locally on a pledget of cotton. During the next ten weeks, the medicine being discontinued locally, six or eight applications of chromic acid were made to small recurring warts. The warts then disappeared. Subsequently the mucous membrane of that side having a tendency to become dry, he was given a spray of two grains of carbolic acid, and two grains of camphor to the ounce of liquid alboline. The warts have not returned. The author thinks he ought to give some credit to the thuja occidentalis in the cure, notwithstanding the cauterizations with chromic acid. The growths did not reappear so quickly, and enlarged much more slowly after the thuja occidentalis had been in use a short time.

DISCUSSION.

Dr. BOSWORTH remarked that these growths in the nose are quite frequent, and he had seen half a dozen cases within the last year. They are probably usually mistaken for small polypi. In a case of broad papilloma of the tongue and palatal arches of a child three months old, thuja occidentalis was without any effect; the growths disappeared under glacial acetic acid. His own experience was against thuja occidentalis.

Dr. JARVIS was the first to point out that laryngeal growths would disappear under chromic acid. Its action does not spread beyond the papillomatous tissue, and it does no harm to healthy tissues in the vicinity of the growth. He had only seen two cases of nasal papilloma, and thought that many cases were really epithelioma.

Dr. MULHALL thought there was some confusion between papilloma and warty growths. He had only seen one case of papilloma, and wondered at Hopmann's statement that he had seen one hundred and twenty cases of warty growths in the nose.

Dr. JOHN MACKENZIE had seen the prolapse of the mucous membrane from the anterior portion of the middle turbinated, which could be withdrawn from the nose, and which had been mistaken for polypus.

Dr. MACCOY recalled three cases of warty growths of the vestibule, which he removed with the galvano-cautery. There was some tendency to recurrence.

Dr. DELAVAN thought the condition was rare, and wondered at Hopmann's statements.

Dr. JOHN MACKENZIE agreed with Dr. Bosworth that these papillomatous tumours are likely to grow just within the vestibule, and are more common than is generally supposed. Growing further within the nose they are rare; he could only recall two cases. Where a papillary growth with broad base and tendency to bleed exists, we should suspect carcinoma. Hopmann probably mistook for papilloma the changes that occur in the ordinary transition from the secondary to the tertiary forms of chronic rhinitis. Cross sections of these bodies resemble papilloma, but they are really turbinated erectile tissue. Patients who have complained for long of fulness of the nostril and of symptoms of hypertrophic catarrh often expel little fleshy pieces with relief to the obstruction, which are the results of hypertrophic degeneration, and resemble, microscopically, papillomatous structures.

Dr. INGALS had often seen a mulberry-like appearance of the turbinateds, which condition had probably been mistaken by Hopmann for warts. It is not

true papilloma, and he had only seen one case of true warty growths, which grew from the septum, and afterwards from the turbinated body, and had all the appearance of warts as seen on the hands.

He did not wish to claim any special value for thuja occidentalis, but his patient did better after using it than before. Possibly it may make some difference whether the tincture is used fresh or not. In his case it was prepared at the time from fresh leaves of the arbor vitæ.

Dr. S. W. LANGMAID read a paper on *Hoarseness and Loss of Voice, caused by wrong Vocal Method*. A class of case frequently presents itself, persons learning singing, in which the patient complains of fatigue, followed by loss of the high notes and hoarseness of the speaking and singing voice, with the objective signs of naso-pharyngitis, catarrhal laryngitis, and paresis of the vocal cords upon attempted phonation, with defective tension. Entire rest of the speaking and singing voice would be enjoined and the catarrh would be treated with, if necessary, strychnine and faradization. If the cure should be short-lived and the condition recurred after recommending lessons, the inference would be that singing had something to do with it. Singing properly performed "never injured a healthy throat," and singing and declamatory exercises are restorative to throats which have congestive tendencies, preventing catarrhal inflammations; therefore singing must not be abandoned, but inquiry must be made as to the manner of using the voice. How is it to be shown that the voice has been improperly trained or used? The peculiar morbid conditions occurring in the throat, as mentioned in the case quoted, are most frequently caused by bad instruction given by some teachers and not infrequently inculcated by treatises on singing, that the tongue should lie flat in the mouth during vocalization. The deduction that by flattening the tongue the oropharyngeal cavity is thereby rendered larger, with increase of the tone, is erroneous, and, even if true, would be the method least suited to obtain this end. The attempt to depress the tongue causes tension of the posterior, and especially of the anterior pillars of the fauces, and the isthmus is thereby narrowed. Forced flattening also prevents the necessary free movement of that organ, as well as of the jaw and the velum palati. The epiglottis is bent backwards and the larynx driven down and held in a constrained position. To insist that the base of the tongue should remain flat in singing the vowels *e* and *i* (Italian) is to demand that opposing hindering muscular efforts shall be made, and the natural emission of these vowels is impossible. To *hold* the tongue flat for such vowels as are *naturally* produced with a lower position of the tongue and larynx, *a* and *u* (Italian), is to prevent the free action of the muscular adjustments necessary for every note of the scale successively. The constrained unnatural position of the pharyngeal muscles will account for the catarrh, and will produce great injury within the larynx. No force must be permitted which, by opposing muscular action, restrains the movements necessary to produce the registers. The fatigue of the intrinsic laryngeal muscles arises from unnaturally forced endeavours of these and other muscles to form the glottis into proper shape for different tones of the scale. The tired muscles are incapable of the required contracting force, and tension and adductive power are

lost. In two cases, Dr. Langmaid has seen extravasation of blood under the mucous membrane of the vocal cord. One case was that of a young lady who was being taught to force the tongue flat while singing; the other was that of an actor, who, in order to produce a peculiar low voice, quickly alternating with a voice of high *timbre*, had produced the effect by forcing down the larynx, to which succeeded great vocal fatigue and hæmorrhage into the vocal cord. The author quotes Patton and Morell Mackenzie in support of his contention.

DISCUSSION.

Dr. DELAVAN: It will be generally conceded that no higher authority than Dr. Langmaid could discuss the questions presented in this paper. To it we can only add the testimony of our own experience. From the statements of noted singers who have been trained under the system which the reader of the paper describes, as well as from my own personal experience in practical vocalization, I am able to confirm the views which he has expressed. Not infrequently cases have come to me complaining of some laryngeal difficulty in which a diagnosis from simple inspection of the larynx was impossible, and a correct solution of the matter only arrived at by a careful study of the vocal methods of the patient and the discovery of its defects. In many instances faulty voice-production will be found to be the true explanation of an otherwise inexplicable difficulty. Of course it is of great importance for us to understand our cases in order that we may properly treat them, and, understanding them, to see that the treatment employed be not confined to local applications, but that the faulty methods of vocalization be corrected under the training of a competent teacher. Again, the services of the vocal instructor are of great value in the treatment of certain chronic conditions of laryngeal disease. I am in the habit of referring patients to a skilful teacher for the purpose of obtaining systematic exercise of the laryngeal muscles, just as in appropriate cases the surgeon resorts to passive motion. It is to be hoped that Dr. Langmaid will continue to offer us such studies as this through his work. Aided by that of Dr. French, we should be in a position to recognize and successfully treat many cases which now are wholly misunderstood.

Dr. HINKLE: I am reminded by the paper of a class of cases in which I have taken much interest—cases in which there is vocal disability due to some structural defect in the nasal passages or naso-pharynx. Such patients suffer injury to the throat and voice from the demands made upon the vocal organ beyond what is customary in speech, even though there be nothing faulty in the vocal method. It is of importance to recognize this defective condition, for many teachers and pupils are puzzled to account for the failure of promising voices, in which the defect is due to a lack of co-ordination, as it were, between the primary tone-organ and the resonating apparatus. The removal of a septal ridge or of adenoids not infrequently restores the power and quality to the voice. I recall a tenor who gained a minor third in his compass after the removal of a septal ridge from which he had suffered no inflammation or obstruction of which he was aware.

Dr. MULLHALL: The matter which the last speaker refers to is hardly germane to the subject of the paper. If we were to go into the discussion of the effects of abnormalities of the air-passages upon the formation of tone, we should hardly get through with it before our final adjournment. There is one point, however, that I would like to have discussed. It is the so-called "abdominal" method of singing or managing the voice. I wish that every singing-master could have this paper of Dr. Langmaid's put into his hand. I agree with the essayist that any singer who is *conscious of effort above the diaphragm* while singing is using a wrong method. I wish to speak of the abdominal method. We notice with what ease the tenor of the Italian opera produces the high notes without even flushing his face, and he can sing the whole evening without apparent fatigue, because he has had the benefit of proper training in the formation of tones and uses his abdominal muscles in singing. I recall the case of a theological student who found in preaching that he got tired in half an hour and lost his voice. I found that he was using his sterno-cleido-mastoid and other neck muscles in producing his pathetic effects. I instructed him to concentrate his mind upon the action of his

abdominal muscles in public speaking and to forget his throat. He practised this and taught himself this method that I have described, and found that he could preach for two hours at a time without any hoarseness whatever. The method of using the voice by which the very walls of the theatre are made to vibrate with the volume of sound is familiar to those who attend Italian opera; the effects are produced by the action of the abdominal muscles and the diaphragm. Many singing-teachers in this country apparently do not know this. The teachers in the theological seminaries do not know how to instruct students in the proper use of these muscles. I might mention a case which may not be exactly genuine to the subject. A prominent teacher in St. Louis sent one of her pupils to me because she could not get beyond a certain note in the scale. Upon examination, I found a very peculiar condition. As the voice rises in the scale the epiglottis usually becomes more and more erect, becoming vertical with the high notes. This young lady had enlarged papillæ at the base of the tongue, which were so large as to interfere with the epiglottis and prevent it from erecting itself to form the notes. I removed these growths with a wire snare, and it added two notes to her upper register and gave a really brilliant result.

Dr. MACKENZIE: Faulty training must be recognized as a cause of vocal defects, and in overcoming them much time and patience are needed. I agree with Dr. Mulhall in regard to bridling the tongue. The isolation of the naso-pharynx is due to the rising of the dorsum of the tongue to meet the descending walls of the pharynx and uvula. The motions of the tongue have a great deal to do with the formation of tones, and anything encroaching upon the naso-pharynx or the tongue is an important factor in the destruction of the mechanism of voice. The instruction given by singing-teachers to keep the tongue upon the floor of the mouth is not physiological. It checks and cripples the movements of the throat muscles, the tensor palati, and the middle constrictor of the pharynx; even the buccinators are under restraint. It is the opinion of Meyer, of Zurich, that the middle constrictor of the pharynx is not concerned in swallowing, but is concerned in speech and in singing, therefore a very important agent in vocalization. In the production of certain notes there is a pushing forward of the middle fibres of this muscle toward the palate. It has been shown conclusively that this bulging of the middle constrictor muscle, upon which the soft palate rests, is of special use, as together they produce a complete isolation of the mouth and nose in the production of certain notes. With regard to Dr. Hinkel's observation, the fact is already well known. With regard to Dr. Mulhall's remarks, it was Mandl who pointed out in his writings with more clearness than the others the importance of the abdominal method. In the Italian school great attention is paid to this method of developing the abdominal muscles. The suggestion of Dr. Mulhall is a very proper one, and should be put in operation in our daily work; by it we may succeed in curing cases that otherwise we could not benefit.

Dr. LANGMAID: I feel gratified by the discussion which has been given to the subject, which I have had under consideration for a long time. I have said in my paper that there are wrong vocal methods, and I have been asked to formulate the right vocal method. I know many wrong ones from the effects that are produced by them; what is the right one I hope to be able to state at some future time. With regard to the class of singers referred to, who are conscious of effort and difficulty in the use of their voice, we must be careful in our advice and prognosis. I have been impressed for years that the method of holding the tongue down in the production of vocal sounds is a wrong one. I made many observations during several years, and became finally convinced that this was the source of all the difficulty in certain cases. I found patients relieved by correcting this method, so that I am satisfied that this was a correct view. Dr. Hinkel referred to the fact that nasal stenosis produces changes in the voice, and Dr. Mackenzie seems to agree with him that such disorders are frequent causes of voice difficulties. I am satisfied that Dr. Hinkel is correct in his observations upon his case, but I am not satisfied that it is by any means a great cause of voice defects. A partial filling up of the naso-pharynx is not constant in its effects upon the voice; it may or may not impair it. Of course, if the pharynx were completely filled it would affect the voice, but there is no evidence that a partial filling up would have any such consequences. I entirely endorse the remarks by Dr. Mulhall with regard to the taking of the attention away from the throat; it is very important to a correct vocal method. I also approve his remarks upon the

abdominal method. This is very interesting, and I intend to make some observations upon breathing if I live long enough. There is much to be learned with regard to correct methods of breathing.

With reference to the case of the clergyman, the observation was a just one. I have elsewhere said that the laryngeal muscles were in position to place the vocal organs in proper place to form a given tone without the wind-blast. The wind-blast does not produce the pitch; the larynx is properly adjusted for the tone before the wind-blast reaches it. If we had to depend upon the delicate adjustment of the wind-blast, how many would be able to sing in tune? The muscles instinctively put the cords in position to produce the note, which is virtually produced before the wind-blast comes, which puts them in vibration and gives out the tone. When the wind-blast is strong it seems as if the cords would not be able to resist it, and yet they do not yield. The station, as I call it, is immovable when the wind-blast comes; the muscle does not give at all; if it did, the tone would change and be either sharp or flat. Therefore the distinction is that the note is not made by the wind-blast, but it is carried on by the wind-blast, and intensified by increase of the wind-blast. Now the question comes up, "What portion of the abdominal muscles should be brought into play to produce the result most effectively?" This I will reserve for future consideration. With regard to the case of Dr. Mulhall, I described one exactly similar to his. I made one attempt to remove the growth and told the patient to come back, but he never did. The growth in this case had already decidedly impaired the mobility of the epiglottis. In reply to Dr. Mulhall, I might state that in a paper by Morell Mackenzie upon the voice he says that some singers protrude the abdomen and some retract it. With regard to the tongue, we must remember that tongues are of different shapes naturally; some are flat and broad, others narrow or wedge-like. Because some singers sing with a flat tongue, it does not follow that others must do it. I am satisfied that the position and shape of the tongue depend upon the motions of the muscles of the larynx. The fact is that some singers sing with the back of the tongue raised, and it is also a fact that others, equally good, sing with the tongue flat.

THE PRESIDENT: What do you think of the method in which the tone is thrown to the bridge of the nose?

DR. LANGMAD: This question might be construed the wrong way. That the resonance is universal and involves the hard parts and also the soft parts is true; that the voice which is not reflected is a dull voice, as the singer says, is true; but that these are the only parts which reflect the voice is certainly not true; ill results to the laryngeal muscles and the voice will come from an attempt to follow this method. I have endeavoured to confine my paper to one form of wrong method of voice training, so that I could not be contradicted without having an answer prepared. By keeping on one subject I hoped to avoid vagueness in the discussion which would follow.

THE PRESIDENT: Do you not think that the nasal and accessory chambers are too much neglected in the usual teaching of singing?

DR. LANGMAD: Not by the best teachers. The methods pursued are those intended to develop the best acoustic qualities. For the same reason the Italians have always made use of the resonance of the head. If you choose to call it "nasal resonance" you may do so.

DR. E. FLEISCHER INGALLS read a paper upon *Unilateral Paralysis of the Lateral Crico-Arytenoid Muscle*. Bilateral paralysis is common, but unilateral paralysis is not often met with except as the result of compression or injury of the recurrent nerve (aneurism of aorta or malignant disease of œsophagus) in rare cases of lead and arsenic poisoning, and sometimes after exposure to cold, rheumatism, or phthisis, or as the result of accident or wounds. When accompanied with paralysis of the same side of the tongue or palate it is of centric origin. Two cases which the author reports seem to be of hysterical origin, though one might show that injury to the terminal branches of one

branch of the eighth pair of nerves may reflexly produce paralysis of distant muscles supplied by an entirely different branch of the same nerve, and the other might prove that paralysis in distant muscles, supplied by the pneumo-gastric branch of the eighth pair might be produced by injury to the terminal loops of one branch of the fifth pair. Dysphonia was present in both cases, and coughing and sneezing sounds were more or less altered. There was no sign of constitutional disease or evidence of hysteria, no swelling or congestion of the larynx, or injury to the recurrent nerve.

One case was a female, aged twenty-two, who lost her voice suddenly after the extraction of some teeth. She spoke in a whisper, had pain in the shoulder and back, and some dysphagia; otherwise was in perfect health. There was no evidence of hysteria. Paresis of the depressors of the epiglottis was present, but was only indicated by difficulty of swallowing, and was not discernible upon laryngoscopic examination. Laryngoscopically, the right vocal cord remained motionless at the side of the larynx on phonation, the opposite cord crossing three millimètres beyond the mid-line. Stimulating sprays and strychnine internally were given without result. Faradism was tried, and slight improvement resulted. Later on, increased doses of strychnine, with quinine, valerianate of zinc, and nitrate of sanguinarine were given, and faradism externally, and in five weeks after she reported herself cured.

The second case occurred in a female, aged nineteen, and Luschka's tonsil had been removed at two operations, at the second one cocaine being freely used. The day after operation the patient had used her voice more than usual, and the next day could speak only in a whisper. For eight weeks she made slight improvement and could then speak in a husky tone, but was unable to sing. Several applications of faradism had been made. General health was excellent. The nares and nasopharynx were normal, but there was some inflammation about the Eustachian tubes. The right vocal cord was completely abducted and immovable on phonation. The opposite crossed the mid-line to meet its fellow. There was no congestion or swelling. The static current was applied externally over the larynx, and a spray of oily solution of carbolic acid, gr. ii., and menthol, gr. v., in liquid albolene ʒj, was used to the Eustachian tubes and middle ear. Strychnine was also given internally. She was entirely cured without recurrence.

DISCUSSION.

Dr. BOSWORTH remarked that in several cases of paralysis of one side of the larynx with complete loss of voice, and in two instances of falsetto voice, the voice afterwards became almost absolutely normal, although the paralysis persisted. This was accomplished by the healthy cord swinging over to the paralysed side to compensate.

Dr. BOSWORTH read a paper on *A Case of Unilateral Paralysis of the Abductors of the Larynx, the result of an attack of Bulbar Disease, with unusual symptoms, and which was apparently caused by Suppurative Disease of the Antrum*. In August, 1889, the patient, a man, had purulent discharge from the left antrum, originating in an ulcerated

second molar tooth. On November 20th, when he rose from bed, he fell over to the right side, and nausea. He could not swallow water. When he walked it was with effort, and he unconsciously turned to the right; dizziness and nausea also continued. He was partially paralysed over the whole right side from the crown of his head to his soles. On the left side there was paralysis of sensation—the tactile sense not being destroyed, while the sense of heat and cold was absolutely gone. There was slight dyspnoea, and the vocal tones were peculiar. This was, of course, due to paralysis of the palate. There was no facial paralysis. There was impairment of sight, the eyes not focussing well. He could neither sneeze nor cough, although he could clear the throat with some difficulty. The tongue was protruded slightly to the right side. Articulation was not impaired. Sense of taste was notably impaired on the left side of the tongue and the whole fauces. Power of deglutition was lost for two days, but returned on the third, and improved for some weeks. On the twelfth day after the attack, motor impairment had disappeared. Impairment of motion lasted only two months, but some was still evident. The sensory paresis of the left side improved quite slowly, and at the end of four months there was still failure to appreciate sensations of heat and cold. He came to the author to consult him for antrum disease. He appeared to be in perfect health. An examination of the larynx showed the right cord lying motionless in the median position, *i.e.*, complete paralysis of abduction of the right vocal cord. Dr. Starr was disposed to agree with the author that the condition was due to thrombosis of one of the small arteries of the medulla, leading to some meningeal disturbance extending to the cerebellum. The author thinks that, without doubt, the patient had an attack of bulbar disease, the only remnant of which was the abductor paralysis. The ganglionic centre, presiding over the respiratory movements of the larynx, lay in the area of distribution of the artery concerned. Why does this abductor paralysis persist? Either because the ganglion is permanently destroyed, or there is an essential proclivity on the part of the abductor muscles to become the seat of paralysis.

Dr. BOSWORTH related another case of partial ankylosis of the crico-arytenoid joint due probably to rheumatism, and thinks that a good number of so-called "paralyses" should be relegated to another category. The author reviews the literature of recorded cases of laryngeal recurrent paralyses due to bulbar disease (Hughlings Jackson, Proust, Senator, Eisenlohr, Sokoloff, and of recurrent laryngeal paralysis in locomotor ataxia (Oppenheim, Kehler, Wegner, Krause, Saundby, Semon, Hubbard, and himself; cases of double abductor paralysis with extensive lesion of the medulla (Ollivier d'Angers, Krause, Penzoldt, Smith). The number of cases reported of unilateral paralysis of the abductor is small (Gerhardt, McBride, Nothnagel, Delavan, Wright).

The author thinks that a central lesion is responsible for a genuine paralysis of the vocal cords in a larger proportion of cases than is usually believed.

DISCUSSION.

Dr. WESTBROOK : I should like to ask the author of the paper if he would not consider it possible that the short duration of the motor paralysis, the suddenness of onset, and subsequent history of the case, might rather tend to exclude the idea of lesion of the medulla. A lesion of the medulla sufficient to cause so extensive a paralysis, to give complete hemiplegia, I should not think could be recovered from so readily. I should think that a case like this might be accounted for on the supposition of an embolus passing into the middle cerebral artery, or a thrombus in the sinus, or in one of the other vessels at the base. An embolus or thrombus affecting the internal capsule might account for the paralysis. But the whole thing might be due to a tumour, or clot in one of the venous sinuses at the base of the brain. It seems more probable that it was of this character than that it was a lesion of the medulla itself; a lesion of such an extensive nature as this must have been, occurring near the medullary centre for respiration and the vaso-motor centre, would have been likely to be quickly fatal. At all events, the patient would not be likely to recover so completely or quickly.

Dr. BOSWORTH : In reply to the question, I would say that there is no doubt about the bulbar nature of the lesion in view of the extent of the paralysis. There was loss of deglutition and of power in other muscles supplied by the eighth pair of nerves; the laryngeal paralysis, with hemiplegia, all point to the bulb as the origin of the eighth pair of nerves in the floor of the ventricle. The extent of the case, the history of a chronic suppurative process in a closed cavity, suggest thrombosis of one of the small arteries, from the basilar supplying the medulla. The absorption of the embolus would account for the rapid recovery, for the occurrence of softening would naturally take some time. An interesting point is the occurrence of hemiplegia. I recall no case on record in which thrombosis in the medulla caused hemiplegia, which makes this case especially interesting. There was also some cervical adenitis, which still further supported the view of lesion at the base and in the cerebellum.

The British Laryngological and Rhinological Association

Met on November 28th, at the Medical Society's Rooms, in London.

Papers were read as follows :—

“On the nature of the Tonsils and Lymphoid Tissue of the Pharynx.”

—Mr. MAYO COLLIER.

“A case of Lymphadenoma affecting the Tonsils and Naso-Pharynx.”

—Dr. KENDAL FRANKS.

“A case illustrating the possibility of hypertrophy of the Pharyngeal Tonsil being an etiological factor of papillomata in children.”—Mr. LENNOX BROWNE.

“A case of unrecognised impaction of artificial teeth for twenty-two months, with successful removal.”—Mr. LENNOX BROWNE.

“Progressive immobility of a Vocal Cord, and its value in diagnosis.”
—Dr. HUNTER MACKENZIE.

“A case of persistent immobility of the right Vocal Cord after complete recovery from an attack of Hemiplegia, with exhibition of the patient.”—Mr. LENNOX BROWNE.

Cases were shown by Drs. DUNDAS GRANT and LENNOX BROWNE.

A Report of the Meeting will appear in the next number of the Journal.

NEW INSTRUMENTS.

Vereker's Chloride of Ammonium Inhaler. (BURROUGHS, WELLCOME & CO.)

This inhaler has long been before the medical public, and is too well known to require any description. One objection urged against it has been its expense, which puts it out of the reach of the poorer class of patients, who are thus driven to use cheaper and less efficient inhalers. The present inhaler is altogether similar to the larger one, except for size and cost. It is in fact a miniature reproduction of the well-known Vereker's Inhaler, but, whereas the former costs 12s. 6d., this is sold at a cost only of 7s. 6d. It appears to be in every way as efficient as the larger inhaler, and in the introduction of this instrument the energetic firm of Burroughs, Wellcome & Co. have supplied a want.

Vaseline Atomizer. (BURROUGHS, WELLCOME & CO.)

This instrument (Codman and Shurtleff's Atomizer) has delighted us. We have so often asked for a spray that would throw a fine vapour of an ointment or oily basis, and those which are offered for the purpose in this country are anything but satisfactory. The spray before us meets all our wants. No laryngologist's table will be complete without one of these beautiful sprays.





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